

Logon

\*\*\* It is now 3/27/07 11:30:23 AM \*\*\*

## Welcome to DialogLink - Version 5

### Revolutionize the Way You Work!

## New on Dialog

### Enhanced Derwent World Patents Index Now Available

The enhanced *Derwent World Patents Index*® (*DWPI*<sup>SM</sup>) (Files 350,351,352) is now available on Dialog. The improvements implemented in *DWPI* on Dialog further extend the database's rich content set and enhances overall functionality of the database.

In addition to distilled expert analysis reflected in *DWPI* expanded titles and abstracts, other enhancements include original patent filing details, multiple patent images, easy cut-and-paste patent family data, and much more.

The new templates include new features that will help you manage and distribute your *DWPI* search results in an attractive format.

Learn about all of the new *DWPI* enhancements and report templates at <http://www.dialog.com/dwpi>.

### DialogLink 5 Release Notes

New features available in the latest release of DialogLink 5 (November 2005)

- Ability to resize images for easier incorporation into DialogLink Reports
- New settings allow users to be prompted to save Dialog search sessions in the format of their choice (Microsoft Word, RTF, PDF, HTML, or TEXT)
- Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database
- Support for connections to STN Germany and STN Japan services

Show Preferences for details

? Help Log On Msg

\*\*\* ANNOUNCEMENTS \*\*\*

\*\*\*

NEW FILES RELEASED

\*\*\*BIOSIS Previews Archive (File 552)  
\*\*\*BIOSIS Previews 1969-2007 (File 525)  
\*\*\*Engineering Index Backfile (File 988)  
\*\*\*Trademarkscan - South Korea (File 655)

RESUMED UPDATING

\*\*\*File 141, Reader's Guide Abstracts

\*\*\*

RELOADS COMPLETED

\*\*\*File 5, BIOSIS Previews - archival data added  
\*\*\*Files 340, 341 & 942, CLAIMS/U.S. Patents - 2006 reload now online

\*\*\*

DATABASES REMOVED

Chemical Structure Searching now available in Prous Science Drug  
Data Report (F452), Prous Science Drugs of the Future (F453),  
IMS R&D Focus (F445/955), Pharmaprojects (F128/928), Beilstein  
Facts (F390), Derwent Chemistry Resource (F355) and Index Chemicus  
(File 302).

\*\*\*

>>>For the latest news about Dialog products, services, content<<<  
>>>and events, please visit What's New from Dialog at <<<  
>>><http://www.dialog.com/whatsnew/>. You can find news about<<<  
>>>a specific database by entering HELP NEWS <file number>.<<<

? Help Off Line

\* \* \*

Connecting to Rob Pond - Dialog - 264751

Connected to Dialog via SMS00334

? b 15, 9, 610, 810, 275, 476, 624, 621, 636, 613, 813, 16, 160, 634, 148, 20, 35, 583,  
65, 2, 474, 475, 99, 256, 348, 349, 347, 635, 570, papersmj, paperseu, 47

[File 15] ABI/Inform(R) 1971-2007/Mar 26

(c) 2007 ProQuest Info&Learning. All rights reserved.

[File 9] **Business & Industry(R)** Jul/1994-2007/Mar 26  
(c) 2007 The Gale Group. All rights reserved.

[File 610] **Business Wire** 1999-2007/Mar 27  
(c) 2007 Business Wire. All rights reserved.

*\*File 610: File 610 now contains data from 3/99 forward. Archive data (1986-2/99) is available in File 810.*

[File 810] **Business Wire** 1986-1999/Feb 28  
(c) 1999 Business Wire . All rights reserved.

[File 275] **Gale Group Computer DB(TM)** 1983-2007/Mar 26  
(c) 2007 The Gale Group. All rights reserved.

[File 476] **Financial Times Fulltext** 1982-2007/Mar 27  
(c) 2007 Financial Times Ltd. All rights reserved.

[File 624] **McGraw-Hill Publications** 1985-2007/Mar 26  
(c) 2007 McGraw-Hill Co. Inc. All rights reserved.

*\*File 624: Homeland Security & Defense and 9 Platt energy journals added Please see HELP NEWS624 for more*

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Mar 26  
(c) 2007 The Gale Group. All rights reserved.

[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/Mar 26  
(c) 2007 The Gale Group. All rights reserved.

[File 613] **PR Newswire** 1999-2007/Mar 27  
(c) 2007 PR Newswire Association Inc. All rights reserved.  
*\*File 613: File 613 now contains data from 5/99 forward. Archive data (1987-4/99) is available in File 813.*

[File 813] **PR Newswire** 1987-1999/Apr 30  
(c) 1999 PR Newswire Association Inc. All rights reserved.

[File 16] **Gale Group PROMT(R)** 1990-2007/Mar 26  
(c) 2007 The Gale Group. All rights reserved.

[File 160] **Gale Group PROMT(R)** 1972-1989  
(c) 1999 The Gale Group. All rights reserved.

[File 634] **San Jose Mercury** Jun 1985-2007/Mar 23  
(c) 2007 San Jose Mercury News. All rights reserved.

[File 148] **Gale Group Trade & Industry DB** 1976-2007/Mar 16  
(c)2007 The Gale Group. All rights reserved.

[File 20] **Dialog Global Reporter** 1997-2007/Mar 27  
(c) 2007 Dialog. All rights reserved.

[File 35] **Dissertation Abs Online** 1861-2007/Feb  
(c) 2007 ProQuest Info&Learning. All rights reserved.

[File 583] **Gale Group Globalbase(TM)** 1986-2002/Dec 13  
(c) 2002 The Gale Group. All rights reserved.  
*\*File 583: This file is no longer updating as of 12-13-2002.*

[File 65] **Inside Conferences** 1993-2007/Mar 26  
(c) 2007 BLDSC all rts. reserv. All rights reserved.

[File 2] **INSPEC** 1898-2007/Mar W3

(c) 2007 Institution of Electrical Engineers. All rights reserved.

[File 474] **New York Times Abs** 1969-2007/Mar 27

(c) 2007 The New York Times. All rights reserved.

[File 475] **Wall Street Journal Abs** 1973-2007/Mar 27

(c) 2007 The New York Times. All rights reserved.

[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2007/Feb

(c) 2007 The HW Wilson Co. All rights reserved.

[File 256] **TecInfoSource** 82-2007/Oct

(c) 2007 Info.Sources Inc. All rights reserved.

[File 348] **EUROPEAN PATENTS** 1978-2007/ 200708

(c) 2007 European Patent Office. All rights reserved.

*\*File 348: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.*

[File 349] **PCT FULLTEXT** 1979-2007/UB=20070315UT=20070308

(c) 2007 WIPO/Thomson. All rights reserved.

*\*File 349: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.*

[File 347] **JAPIO** Dec 1976-2006/Nov(Updated 070228)

(c) 2007 JPO & JAPIO. All rights reserved.

[File 635] **Business Dateline(R)** 1985-2007/Mar 24

(c) 2007 ProQuest Info&Learning. All rights reserved.

[File 570] **Gale Group MARS(R)** 1984-2007/Mar 26

(c) 2007 The Gale Group. All rights reserved.

[File 387] **The Denver Post** 1994-2007/Mar 26

(c) 2007 Denver Post. All rights reserved.

[File 471] **New York Times Fulltext** 1980-2007/Mar 27

(c) 2007 The New York Times. All rights reserved.

[File 492] **Arizona Repub/Phoenix Gaz** 19862002/Jan 06

(c) 2002 Phoenix Newspapers. All rights reserved.

*\*File 492: This file is no longer updating.*

[File 494] **St LouisPost-Dispatch** 1988-2007/Mar 24

(c) 2007 St Louis Post-Dispatch. All rights reserved.

[File 631] **Boston Globe** 1980-2007/Mar 22

(c) 2007 Boston Globe. All rights reserved.

[File 633] **Phil.Inquirer** 1983-2007/Mar 22

(c) 2007 Philadelphia Newspapers Inc. All rights reserved.

[File 638] **Newsday/New York Newsday** 1987-2007/Mar 27

(c) 2007 Newsday Inc. All rights reserved.



[File 640] **San Francisco Chronicle** 1988-2007/Mar 25

(c) 2007 Chronicle Publ. Co. All rights reserved.

[File 641] **Rocky Mountain News** Jun 1989-2007/Mar 26

(c) 2007 Scripps Howard News. All rights reserved.

[File 702] **Miami Herald** 1983-2007/Mar 18

(c) 2007 The Miami Herald Publishing Co. All rights reserved.

[File 703] **USA Today** 1989-2007/Mar 26

(c) 2007 USA Today. All rights reserved.

[File 704] **(Portland)The Oregonian** 1989-2007/Mar 25

(c) 2007 The Oregonian. All rights reserved.

[File 713] **Atlanta J/Const.** 1989-2007/Mar 25

(c) 2007 Atlanta Newspapers. All rights reserved.

[File 714] **(Baltimore) The Sun** 1990-2007/Mar 23

(c) 2007 Baltimore Sun. All rights reserved.

[File 715] **Christian Sci.Mon.** 1989-2007/Mar 26

(c) 2007 Christian Science Monitor. All rights reserved.

[File 725] **(Cleveland)Plain Dealer** Aug 1991-2007/Mar 26

(c) 2007 The Plain Dealer. All rights reserved.

[File 735] **St. Petersburg Times** 1989- 2007/Mar 25

(c) 2007 St. Petersburg Times. All rights reserved.

[File 477] **Irish Times** 1999-2007/Mar 26

(c) 2007 Irish Times. All rights reserved.

[File 710] **Times/Sun.Times(London)** Jun 1988-2007/Mar 27

(c) 2007 Times Newspapers. All rights reserved.

[File 711] **Independent(London)** Sep 1988-2006/Dec 12

(c) 2006 Newspaper Publ. PLC. All rights reserved.

*\*File 711: Use File 757 for full current day's news of the Independent, as as well as full coverage of many additional European news sources.*

[File 756] **Daily/Sunday Telegraph** 2000-2007/Mar 27

(c) 2007 Telegraph Group. All rights reserved.

[File 757] **Mirror Publications/Independent Newspapers** 2000-2007/Mar 27

(c) 2007. All rights reserved.

[File 47] **Gale Group Magazine DB(TM)** 1959-2007/Mar 16

(c) 2007 The Gale group. All rights reserved.

? s pd<20030627 and pd>19970627

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

>>>W: One or more prefixes are unsupported

or undefined in one or more files.

S1 59501753 S PD<20030627 AND PD>19970627

? s server-centric or server-heavy or (server(2n)(centric heavy or fat))

Processing

1 SERVER-CENTRIC

0 SERVER-HEAVY

2380445 SERVER

0 CENTRIC HEAVY

1064586 FAT

940 SERVER(2N) (CENTRIC HEAVY OR FAT)

S2 941 S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N) (CENTRIC HEAVY OR FAT))

? s client-centric or client-heavy or (client(3n)(centric or heavy or fat))

Processing

0 CLIENT-CENTRIC

0 CLIENT-HEAVY

3628784 CLIENT

	348585	CENTRIC
	4165026	HEAVY
	1064586	FAT
	13877	CLIENT(3N)((CENTRIC OR HEAVY) OR FAT)
S3	13877	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))

? s (reduce or reduces or reducing or reduction or reductions) (5n) (overhead)

Processing

Processing

	7202780	REDUCE
	1513965	REDUCES
	3511844	REDUCING
	4053657	REDUCTION
	1145957	REDUCTIONS
	841604	OVERHEAD
S4	93768	S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD)

? s (minimize or minimizes or minimized or minimizing or minimal or minimally)

	941683	MINIMIZE
	209165	MINIMIZES
	269428	MINIMIZED
	401369	MINIMIZING
	1149030	MINIMAL
	148908	MINIMALLY
S5	2687449	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)

? S (REDUCE OR REDUCES OR REDUCING or reduced OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD)

Processing

Processing

	7202780	REDUCE
	1513965	REDUCES
	3511844	REDUCING
	5855037	REDUCED

4053657 REDUCTION

1145957 REDUCTIONS

841604 OVERHEAD

S6 112314 S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD)

? S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5n) (impact or traffic or communication or communications)

Processing

Processing

Processing

Processing

941683 MINIMIZE

209165 MINIMIZES

269428 MINIMIZED

401369 MINIMIZING

1149030 MINIMAL

148908 MINIMALLY

7528408 IMPACT

3970533 TRAFFIC

5224275 COMMUNICATION

14897598 COMMUNICATIONS

S7 151931 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

? d s

Set	Items	Description
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S1	59501753	S PD<20030627 AND PD>19970627
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S2	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N) (CENTRIC HEAVY OR FAT))
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S3	13877	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N) (CENTRIC OR HEAVY OR FAT))
----	-------	--

S4	93768	S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD)
----	-------	--

S5	2687449	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)
----	---------	--

S6	112314	S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD)
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S7 151931 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

? d s

Set	Items	Description
S1	59501753	S PD<20030627 AND PD>19970627
S2	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N) (CENTRIC HEAVY OR FAT))
S3	13877	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N) (CENTRIC OR HEAVY OR FAT))
S4	93768	S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD)
S5	2687449	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)
S6	112314	S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD)
S7	151931	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

? s s1 and (s2 or s3) and (s6 or s7)

	59501753	S1
	941	S2
	13877	S3
	112314	S6
	151931	S7
S8	157	S S1 AND (S2 OR S3) AND (S6 OR S7)

? s batch or batched or batching or batches

	556258	BATCH
	5445	BATCHED
	10810	BATCHING
	116888	BATCHES
S9	646220	S BATCH OR BATCHED OR BATCHING OR BATCHES

? s aggregate or aggregates or aggregated or aggregating

	995375	AGGREGATE
	161393	AGGREGATES
	130085	AGGREGATED

93720 AGGREGATING

S10 1282404 S AGGREGATE OR AGGREGATES OR AGGREGATED OR AGGREGATING

? s group or groups or grouping or grouped

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

26374130 GROUP

7463024 GROUPS

213227 GROUPING

218205 GROUPED

S11 30569274 S GROUP OR GROUPS OR GROUPING OR GROUPED

? S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (overhead or IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS or congestion)

Processing

Processing

Processing

Processing

941683 MINIMIZE

209165 MINIMIZES

269428 MINIMIZED

401369 MINIMIZING

1149030 MINIMAL

148908 MINIMALLY

841604 OVERHEAD

7528408 IMPACT

3970533 TRAFFIC

5224275 COMMUNICATION

14897598 COMMUNICATIONS

429311 CONGESTION

S12 167696 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION)

? S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD or impact or traffic or communication or communications or congestion)

Processing

Stop request submitted

>>>P: Processing stopped

? S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION or bandwidth)

Processing

Processing

Processing

Processing

Processing

Processing

7202780 REDUCE

1513965 REDUCES

3511844 REDUCING

5855037 REDUCED

4053657 REDUCTION

1145957 REDUCTIONS

841604 OVERHEAD

7528408 IMPACT

3970533 TRAFFIC

5224275 COMMUNICATION

14897598 COMMUNICATIONS

429311 CONGESTION

1008458 BANDWIDTH



S13 539783 S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

? S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION or bandwidth)

Processing

Processing

Processing

941683	MINIMIZE
209165	MINIMIZES
269428	MINIMIZED
401369	MINIMIZING
1149030	MINIMAL
148908	MINIMALLY
841604	OVERHEAD
7528408	IMPACT
3970533	TRAFFIC
5224275	COMMUNICATION
14897598	COMMUNICATIONS
429311	CONGESTION
1008458	BANDWIDTH

S14 176789 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

? d s

Set	Items	Description
S1	59501753	S PD<20030627 AND PD>19970627
S2	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N) (CENTRIC HEAVY OR FAT))
S3	13877	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N) (CENTRIC OR HEAVY OR FAT))
S4	93768	S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD)
S5	2687449	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)
S6	112314	S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD)

S7 151931 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

S8 157 S S1 AND (S2 OR S3) AND (S6 OR S7)

S9 646220 S BATCH OR BATCHED OR BATCHING OR BATCHES

S10 1282404 S AGGREGATE OR AGGREGATES OR AGGREGATED OR AGGREGATING

S11 30569274 S GROUP OR GROUPS OR GROUPING OR GROUPED

S12 167696 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION)

S13 539783 S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S14 176789 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

? s s1 and (s2 or s3) and (s13 or s14)

59501753 S1

941 S2

13877 S3

539783 S13

176789 S14

S15 313 S S1 AND (S2 OR S3) AND (S13 OR S14)

? s s15 and (s9 or s10 or s11)

313 S15

646220 S9

1282404 S10

30569274 S11

S16 219 S S15 AND (S9 OR S10 OR S11)

? s accumulate or accumulates or accumulated or accumulating or accumulation or accumulations

240346 ACCUMULATE

67793 ACCUMULATES

862764 ACCUMULATED

145088 ACCUMULATING

366318 ACCUMULATION

33624 ACCUMULATIONS

S17 1530956 S ACCUMULATE OR ACCUMULATES OR ACCUMULATED OR ACCUMULATING OR  
ACCUMULATION OR ACCUMULATIONS

? s s15 and (s9)

>>>W: Operator "(9S)" in invalid position

>>>E: There is no result

? s s15 and s9

313 S15

646220 S9

S18 55 S S15 AND S9

? rd

>>>W: Duplicate detection is not supported for File 348.

Duplicate detection is not supported for File 349.

Duplicate detection is not supported for File 347.

Records from unsupported files will be retained in the RD set.

S19 54 RD (UNIQUE ITEMS)

? t s19/free/all

>>>W: "FREE" is not a valid format name in file(s): 347-349

19/8/1 (Item 1 from file: 15)

ABI/Inform(R)

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02414116 124683921

**\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***

**Online cash management market...customer expectations, banks' challenges**

**Word Count: 2118 Length: 4 Pages**

**May/Jun 2002**

**Geographic Names: United States; US**

**Descriptors: Bank services; Cash management services; Internet; Banking industry**

**Classification Codes: 8110 (CN=Commercial banking); 5250 (CN=Telecommunications systems & Internet communications); 3100 (CN=Capital & debt management); 9190 (CN=United States)**

**Print Media ID: 14887**

19/8/2 (Item 2 from file: 15)

ABI/Inform(R)

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02184121 74278124

**\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***

**App dread**

**Word Count:** 946 **Length:** 2 Pages

Jun 18, 2001

**Geographic Names:** United States; US

**Descriptors:** Technological planning; Systems integration; Enterprise resource planning; Project management

**Classification Codes:** 9190 (CN=United States); 5220 (CN=Information technology management); 5240 (CN=Software & systems)

**Print Media ID:** 15378

19/8/3 (Item 1 from file: 275)

Gale Group Computer DB(TM)

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02192900 **Supplier Number:** 20229290 (Use Format 7 Or 9 For FULL TEXT )

**Comdex Fall '97: a look at the future of building systems. (includes related articles on chip development, RISC vs CISC) (Industry Trend or Event)**

Jan 19 , 1998

**Word Count:** 22365 **Line Count:** 01681

**Special Features:** chart; graph; illustration

**Descriptors:** Trade Show Report; Publishing Industry; Comdex-Fall

**Product/Industry Names:** 7372000 (Computer Software); 3573000 (Computers & Peripherals)

**SIC Codes:** 7372 Prepackaged software; 3571 Electronic computers

**File Segment:** CD File 275

19/8/4 (Item 1 from file: 16)

Gale Group PROMT(R)

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10318240 **Supplier Number:** 96454919 (USE FORMAT 7 FOR FULLTEXT)

**Insurance administration.**

Jan 15 , 2003

**Word Count:** 20222

**Publisher Name:** CMP Media, Inc.

**Descriptors:** \*Insurance industry--Products

**Event Names:** \*330 (Product information )  
**Geographic Names:** \*1USA (United States )  
**Product Names:** \*7372464 (Insurance Industry Software)  
**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources )  
**SIC Codes:** 7372 (Prepackaged software )  
**NAICS Codes:** 51121 (Software Publishers )

19/8/5 (Item 2 from file: 16)  
Gale Group PROMT(R)  
(c) 2007 The Gale Group. All rights reserved.  
09372568 **Supplier Number:** 82016417 (USE FORMAT 7 FOR FULLTEXT)

**Claims administration. (Insurance Administration).(Buyers Guide)**  
Jan 15 , 2002  
**Word Count:** 3501  
**Publisher Name:** CMP Media, Inc.  
**Event Names:** \*330 (Product information )  
**Geographic Names:** \*1USA (United States )  
**Product Names:** \*6322000 (Health Insurance); 7372466 (Medical Practice Software)  
**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources )  
**SIC Codes:** 6324 (Hospital and medical service plans); 7372 (Prepackaged software )  
**NAICS Codes:** 524114 (Direct Health and Medical Insurance Carriers); 51121 (Software Publishers )  
**Special Features:** LOB

19/8/6 (Item 3 from file: 16)  
Gale Group PROMT(R)  
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08970102 **Supplier Number:** 77876592 (USE FORMAT 7 FOR FULLTEXT)

**Better Data Connectivity Not a Dream.(Brief Article)**  
Sept 3 , 2001  
**Word Count:** 1111  
**Publisher Name:** Cahnners Business Information  
**Event Names:** \*600 (Market information - general )  
**Geographic Names:** \*1USA (United States )  
**Product Names:** \*4833000 (Television Broadcasting); 3662220 (Television Broadcasting Equipment)  
**Industry Names:** ARTS (Arts and Entertainment); BUSN (Any type of business )  
**SIC Codes:** 4833 (Television broadcasting stations); 3663 (Radio & TV communications equipment )  
**NAICS Codes:** 51312 (Television Broadcasting); 33422 (Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing )  
**Special Features:** LOB

19/8/7 (Item 4 from file: 16)

Gale Group PROMT(R)

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08730560 **Supplier Number: 75636620 (USE FORMAT 7 FOR FULLTEXT)**

**AppDREAD; Application developers can make life difficult for network pros, unless you set some ground rules.(Technology Information)**

June 18 , 2001

**Word Count: 968**

**Publisher Name:** Network World, Inc.

**Company Names:** \*PacifiCare Health Systems Inc.; PeopleSoft Inc.

**Event Names:** \*310 (Science & research )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372415 (Human Resources Management Software)

**Industry Names:** TELC (Telecommunications )

**SIC Codes:** 7372 (Prepackaged software )

**NAICS Codes:** 51121 (Software Publishers )

**Ticker Symbols:** PHSYA; PSFT

**Special Features:** COMPANY

19/8/8 (Item 5 from file: 16)

Gale Group PROMT(R)

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05273202 **Supplier Number: 48033383 (USE FORMAT 7 FOR FULLTEXT)**

**Unlock your potential**

Oct 6 , 1997

**Word Count: 6920**

**Publisher Name:** InfoWorld Publishing Company

**Company Names:** \*Advanced Logic Research Inc.; Citrix Systems Inc.; Digital Equipment Corp. ; Hewlett-Packard Co.; Microsoft Corp.; Novell Inc.; 3Com Corp.

**Event Names:** \*330 (Product information); 600 (Market information - general )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372502 (Operating Systems); 3573200 (Computer Peripherals); 3573125 (Information Appliances); 3573102 (Servers (Computers))

**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation )

**NAICS Codes:** 51121 (Software Publishers); 33411 (Computer and Peripheral Equipment Manufacturing); 334111 (Electronic Computer Manufacturing )

**Ticker Symbols:** AALR; CTXS; DEC; HWP; MSFT; NOVL; COMS

**Special Features:** COMPANY

19/8/9 (Item 1 from file: 148)

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10862455 **Supplier Number:** 53976437 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
**Pipe Dreams Jeffrey.(corporations update their communications networks)**

March , 1999

**Word Count:** 3901 **Line Count:** 00321

**Industry Codes/Names:** BANK Banking, Finance and Accounting; BUSN Any type of business

**Descriptors:** Enterprise networks--Management; Wide area networks--Equipment and supplies ;  
Telecommunications equipment industry--Products

**Geographic Codes:** 1USA United States

**Product/Industry Names:** 3661269 (LAN/WAN Equipment NEC)

**Product/Industry Names:** 3661 Telephone and telegraph apparatus

**NAICS Codes:** 33421 Telephone Apparatus Manufacturing

**File Segment:** TI File 148

19/8/10 (Item 2 from file: 148)

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09776432 **Supplier Number:** 19842961 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Unlock your potential. (Novell's IntranetWare 4.11, Microsoft's Systems Management Server 1.2, Citrix's WinFrame 1.7) (includes related articles on the Citrix, Microsoft and Novell solutions including the pros and cons of each; distributed computing environment; a systems administrators needs; Microsoft's Zero Administration Kit for Windows NT) (Software Review)(Evaluation)**

Oct 6 , 1997

**Word Count:** 7215 **Line Count:** 00588

**Special Features:** table; illustration

**Company Names:** Citrix Systems Inc.--Products; Microsoft Corp.--Products; Novell Inc.-- Products

**Industry Codes/Names:** BUSN Any type of business; CMPT Computers and Office Automation

**Descriptors:** Network software--Evaluation; Network management software--Evaluation; Network operating systems--Evaluation

**Product/Industry Names:** 7372611 (Network Management Software); 7372620 (Network Software); 7372610 (Network Operating Systems & Utilities)

**Product/Industry Names:** 7372 Prepackaged software

**Ticker Symbols:** CTXS; MSFT; NOVL

**Trade Names:** WinFrame 1.7 (Network software)--Evaluation; Microsoft Systems Management Server 1.2 (Network management software)--Evaluation; IntranetWare 4.11 (Network operating system)--Evaluation

**File Segment:** CD File 275

>>>W: "FREE" is not a valid format name in file(s): 347-349

? t s19/k/6

19/K/6 (Item 3 from file: 16)

Gale Group PROMT(R)



...clearly be limited by the need to share the same old data infrastructure. Whether the **client** is **fat**, or the **server** is **fat**, the pipe between them remains decidedly skinny.

Application developers and original equipment manufacturers have done...

...systems. In that capacity, control of the OOB channel has been very well adapted to **batch**-based data transmissions driven by a single source. But it is not easily extended to...

...data-connectivity services that simplify data transmission by providing a standardized platform for data transfer.

\* **Reduced congestion** and contention enabling multiple applications to share the OOB pipe.

By examining and managing the...

20010903

? d s

Set	Items	Description
S1	59501753	S PD<20030627 AND PD>19970627
S2	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))
S3	13877	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))
S4	93768	S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)
S5	2687449	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)
S6	112314	S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)
S7	151931	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)
S8	157	S S1 AND (S2 OR S3) AND (S6 OR S7)
S9	646220	S BATCH OR BATCHED OR BATCHING OR BATCHES
S10	1282404	S AGGREGATE OR AGGREGATES OR AGGREGATED OR AGGREGATING
S11	30569274	S GROUP OR GROUPS OR GROUPING OR GROUPED
S12	167696	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION)

S13 539783 S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S14 176789 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S15 313 S S1 AND (S2 OR S3) AND (S13 OR S14)

S16 219 S S15 AND (S9 OR S10 OR S11)

S17 1530956 S ACCUMULATE OR ACCUMULATES OR ACCUMULATED OR ACCUMULATING OR ACCUMULATION OR ACCUMULATIONS

S18 55 S S15 AND S9

S19 54 RD (unique items)

? s transaction or transactions or transaction-based or (transaction(w)based) or transact or transacted or transacting

Processing

Processing

Processing

Processing

Processing

3602978 TRANSACTION

2750065 TRANSACTIONS

3 TRANSACTION-BASED

3602978 TRANSACTION

32065084 BASED

40963 TRANSACTION(W)BASED

71790 TRANSACT

43934 TRANSACTED

24903 TRANSACTING

S20 5595240 S TRANSACTION OR TRANSACTIONS OR TRANSACTION-BASED OR (TRANSACTION(W)BASED) OR TRANSACT OR TRANSACTED OR TRANSACTING

? s s18 and s20

55 S18

5595240 S20

S21 45 S S18 AND S20

? t s21/free/all

>>>W: "FREE" is not a valid format name in file(s): 347-349

21/8/1 (Item 1 from file: 15)

ABI/Inform(R)

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02414116 124683921

**\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***

**Online cash management market...customer expectations, banks' challenges**

**Word Count: 2118 Length: 4 Pages**

May/Jun 2002

**Geographic Names:** United States; US

**Descriptors:** Bank services; Cash management services; Internet; Banking industry

**Classification Codes:** 8110 (CN=Commercial banking); 5250 (CN=Telecommunications systems & Internet communications); 3100 (CN=Capital & debt management); 9190 (CN=United States)

**Print Media ID:** 14887

21/8/2 (Item 1 from file: 275)

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02192900 **Supplier Number: 20229290 (Use Format 7 Or 9 For FULL TEXT )**

**Comdex Fall '97: a look at the future of building systems. (includes related articles on chip development, RISC vs CISC) (Industry Trend or Event)**

Jan 19 , 1998

**Word Count: 22365 Line Count: 01681**

**Special Features:** chart; graph; illustration

**Descriptors:** Trade Show Report; Publishing Industry; Comdex-Fall

**Product/Industry Names:** 7372000 (Computer Software); 3573000 (Computers & Peripherals)

**SIC Codes:** 7372 Prepackaged software; 3571 Electronic computers

**File Segment:** CD File 275

21/8/3 (Item 1 from file: 16)

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10318240 **Supplier Number: 96454919 (USE FORMAT 7 FOR FULLTEXT)**

**Insurance administration.**

Jan 15 , 2003

**Word Count: 20222**

**Publisher Name:** CMP Media, Inc.

**Descriptors:** \*Insurance industry--Products

**Event Names:** \*330 (Product information )  
**Geographic Names:** \*1USA (United States )  
**Product Names:** \*7372464 (Insurance Industry Software)  
**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources )  
**SIC Codes:** 7372 (Prepackaged software )  
**NAICS Codes:** 51121 (Software Publishers )

21/8/4 (Item 2 from file: 16)  
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09372568 **Supplier Number:** 82016417 (USE FORMAT 7 FOR FULLTEXT)

**Claims administration. (Insurance Administration).(Buyers Guide)**  
Jan 15 , 2002  
**Word Count:** 3501  
**Publisher Name:** CMP Media, Inc.  
**Event Names:** \*330 (Product information )  
**Geographic Names:** \*1USA (United States )  
**Product Names:** \*6322000 (Health Insurance); 7372466.(Medical Practice Software)  
**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources )  
**SIC Codes:** 6324 (Hospital and medical service plans); 7372 (Prepackaged software )  
**NAICS Codes:** 524114 (Direct Health and Medical Insurance Carriers); 51121 (Software Publishers )  
**Special Features:** LOB

21/8/5 (Item 3 from file: 16)  
Gale Group PROMT(R)  
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05273202 **Supplier Number:** 48033383 (USE FORMAT 7 FOR FULLTEXT)

**Unlock your potential**  
Oct 6 , 1997  
**Word Count:** 6920  
**Publisher Name:** InfoWorld Publishing Company  
**Company Names:** \*Advanced Logic Research Inc.; Citrix Systems Inc.; Digital Equipment Corp. ; Hewlett-Packard Co.; Microsoft Corp.; Novell Inc.; 3Com Corp.  
**Event Names:** \*330 (Product information); 600 (Market information - general )  
**Geographic Names:** \*1USA (United States )  
**Product Names:** \*7372502 (Operating Systems); 3573200 (Computer Peripherals); 3573125 (Information Appliances); 3573102 (Servers (Computers))  
**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation )  
**NAICS Codes:** 51121 (Software Publishers); 33411 (Computer and Peripheral Equipment Manufacturing); 334111 (Electronic Computer Manufacturing )  
**Ticker Symbols:** AALR; CTXS; DEC; HWP; MSFT; NOVL; COMS

**Special Features: COMPANY**

21/8/6 (Item 1 from file: 148)

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10862455 **Supplier Number:** 53976437 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Pipe Dreams Jeffrey.(corporations update their communications networks)**

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**Word Count:** 3901 **Line Count:** 00321

**Industry Codes/Names:** BANK Banking, Finance and Accounting; BUSN Any type of business

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**Geographic Codes:** 1USA United States

**Product/Industry Names:** 3661269 (LAN/WAN Equipment NEC)

**Product/Industry Names:** 3661 Telephone and telegraph apparatus

**NAICS Codes:** 33421 Telephone Apparatus Manufacturing

**File Segment:** TI File 148

21/8/7 (Item 2 from file: 148)

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09776432 **Supplier Number:** 19842961 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Unlock your potential. (Novell's IntranetWare 4.11, Microsoft's Systems Management Server 1.2, Citrix's WinFrame 1.7) (includes related articles on the Citrix, Microsoft and Novell solutions including the pros and cons of each; distributed computing environment; a systems administrators needs; Microsoft's Zero Administration Kit for Windows NT) (Software Review)(Evaluation)**

Oct 6 , 1997

**Word Count:** 7215 **Line Count:** 00588

**Special Features:** table; illustration

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**Product/Industry Names:** 7372 Prepackaged software

**Ticker Symbols:** CTXS; MSFT; NOVL

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**File Segment:** CD File 275

>>>W: "FREE" is not a valid format name in file(s): 347-349

? t s21/k/3

21/K/3 (Item 1 from file: 16)

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...maintain data, make payments at the appropriate times, generate accounting, keep records on all the **transactions** and provide extracts and reports to help manage the book of business. Pays life, fixed ...

...services. Relius Administration, 401(k) administration/recordkeeping software handles balance-forward and daily-valued plans, **transaction** processing, compliance testing, mutual fund trading and offers straight-through processing capabilities, as well as...

...by: Reducing the time and expense of generating and processing new and renewal business. Trimming **transaction** costs. Facilitating entirely new distribution and marketing opportunities.

AMS Services Inc.

3 Waterside Crossing

Windsor...InsuranceIsland is an Internet-based product for independent agents and carriers enabling end-to-end **transactions** between them. InsuranceIsland is the only enterprise that offers an agent management system that integrates...

...service portal and business development tool. Our function-specific templates and components provide real-time **transaction** and inquiry capabilities via the Web, helping your producers to win more business, improve productivity...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for...

...maintain data, make payments at the appropriate times, generate accounting, keep records on all the **transactions** and provide extracts and reports to help manage the book of business. Pays life, fixed ...

...suite of components designed specifically for the insurance industry; AcroDocs, the client view; AcroCapture for **batch** scan/index processes; AcroFlow, rules based workflow engine; AcroStore, repository component; Internet enabled. AcroDocs' is...

...800-983-8114 Fax: 314/968-9589 info@genelco.com

Genelco Claims+



Internet-accessible, HIPAA **transaction**-enabled adjudication/administration for various health plans and coverage types. Accommodates **batch** EDI claims adjudication; Internet-enabled inquiries, reports, form management and ...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for...

...Claims+ for payments and claims.

Available as an ASP Model

Genelco Claims+

Internet-accessible, HIPAA **transaction**-enabled adjudication/administration for various health plans and coverage types. Accommodates **batch** EDI claims adjudication; Internet-enabled inquiries, reports, form management and updates; and disability processing (tax...800-983-8114 Fax: 314/968-9589 info@genelco.com

Genelco Claims+

Internet-accessible, HIPAA **transaction**-enabled adjudication/administration for various health plans and coverage types. Accommodates **batch** EDI claims adjudication; Internet-enabled inquiries, reports, form management and updates; and disability processing (tax...

...data management solution. This application provides instant, secure access to your membership, eligibility and claims **transactions** 24 hours a day via the Internet. Antares secures your data and downloads it daily...IOCR (using OPTIFACTS), or via mailroom data entry (using FACTS PRE-PROCESSING), and creates a **batch** for automatic adjudication. The process is automated by FACTS CODER (bundled with AUTOFACTS) which provides ...

...This system provides your organization with an effective mailroom data entry solution which helps you **reduce** the administrative **overhead** and costs normally associated with the claims entry

process.

Available as an ASP Model

FACTS...

...800-983-8114 Fax: 314/968-9589 info@genelco.com

Genelco Claims+

Internet-accessible, HIPAA **transaction**-enabled adjudication/administration for various health plans and coverage types. Accommodates **batch** EDI claims adjudication; Internet-enabled inquiries, reports, form management and updates; and disability processing (tax...

...maintain data, make payments at the appropriate times, generate accounting, keep records on all the **transactions** and provide extracts and reports to help manage the book of business. Pays life, fixed ...



...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for ...rule automation and management software, drives and executes complex business processes involving large volumes of **transactions** and empowers business users with a 'point & click' interface and other tools to manage rules...800-983-8114 Fax: 314/968-9589 info@genelco.com

Genelco Claims+

Internet-accessible, HIPAA **transaction**-enabled adjudication/administration for various health plans and coverage types. Accommodates **batch** EDI claims adjudication; Internet-enabled inquiries, reports, form management and updates; and disability processing (tax...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for...

...rating, underwriting, enrollment, premium posting, collections, renewals, full agent commission calculations correspondence, and financial accounting **transactions**. Available as an ASP Model

Confluence Insurance Solutions

527 N. Meadowcroft Ave.

Pittsburgh, PA 15216...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for for insurance carriers and built on the Microsoft platform running Microsoft **Transaction** Server and SQL 7.0. Diamond can be deployed using a thin footprint VB client...

...PolicyFocus, insurers can unify contract administration for all P&C lines. PolicyFocus encompasses all key **transactions** such as issuance, changes, renewals, cancellations/reinstatements and endorsements, including out-of-sequence endorsements. In...

800-983-8114 Fax: 314/968-9589 info@genelco.com

Genelco, Claims+

Internet-accessible, HIPAA **transaction**-enabled adjudication/administration for various health plans and coverage types. Accommodates **batch** EDI claims adjudication; Internet-enabled inquiries, reports, form management and updates; and disability processing (tax...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for...

...that goes with it. Our full-service policy administration includes mail/print, customer service, policy **transaction**, billing/accounting and reporting. Available as an ASP Model

INTEC

1811 Centre Point Circle Ste...

...for carriers and MGA's that supports rating, full policy issuance, all policy life cycle **transactions**, and policy history. Countrywide bureau and client-specific filings for Auto/Garage, Businessowners,

Contractors, CPP...

...is integrated with the policy processing environment to perform new business, endorsements, out-of-sequence **transactions**, renewal, cancellations, premium audits, and reinstatements. Available as an ASP Model

InSystems Technologies, Inc.

19...Policy inSIGHT streamlines policy processing using a modular, open architecture that unifies disparate systems, provides **client-centric** views and improves business user productivity. Policy inSIGHT is built on the WebSphere platform and...system that provides ease of operations to the business user to decrease the time of **transaction** and provide better return on investment (ROI).

TCi Consulting & Research

11 Oak St., Ste. 400...

...payments daily, AQURIT will post to accounts receivable, encode/endorse checks, create deposits, and image **transactions** for print, CD and internet distribution.

Genelco Software Solutions

RBC Liberty Insurance

9735 Landmark Parkway...Policy inSIGHT streamlines policy processing using a modular, open architecture that unifies disparate systems, provides **client-centric** views and improves business user productivity. Policy inSIGHT is built on the WebSphere platform and...end portal and back office life administration system. The portal allows for data exchange and **transactions** for agents, customers and the home office. The back-office administration system provides processing for...Policy inSIGHT streamlines policy processing using a modular, open architecture that unifies disparate systems, provides **client-centric** views and improves business user productivity. Policy inSIGHT is built on the WebSphere platform and...

...bsinger@checkfree.com

CheckFree RECON Securities

RECON Securities is an industry-leading solution for automating **transaction** matching and position reconciliation for both securities and cash **transactions**. RECON Securities streamlines operations and allows organizations to achieve STP by automatically sifting through large volumes of **transactions**, often using different types of security identifiers, to find true matches quickly and accurately. The...

...suite of software modules installed on the client's hardware, interfacing legacy systems for scheduled **batch** processing and

enterprise-wide automated mutual fund processing control and efficiency for cost and risk...Policy inSIGHT streamlines policy processing using a modular, open architecture that unifies disparate systems, provides **client-centric** views and improves business user productivity. Policy inSIGHT is built on the WebSphere platform and...

...agois.com

AGO Workers Compensation System

Workers' compensation system features rating, complete policy assembly and

**transaction** processing including audits, integrated modules for Bureau and statistical reporting.

EDS

5400 Legacy Dr. A3...Provides carriers/MGA's with comprehensive Commercial Lines rating, policy issuance, all policy life cycle **transactions**, and full policy history. Workers' Compensation and Employers Liability for all 50 States plus DC...

...Policy inSIGHT streamlines policy processing using a modular, open architecture that unifies disparate systems, provides **client-centric** views and improves business user productivity. Policy inSIGHT is built on the WebSphere platform and...

20030115

? t s21/k/5

21/K/5 (Item 3 from file: 16)

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...to log in.

However, this Comparison does not attempt to measure the merits of thin-**client** computing vs. **fat-client** computing.

Rather, the goal was to find ways to lower the cost of PCs in...1.2

The capability to duplicate objects made setting up users and applications straightforward and **reduced** the **overhead** for the policy structure and applications repository. We were very impressed with the depth of...we used the NT Server Resource Kit to execute some, but not all, changes in **batch** mode.

Side by side by side

There are two ways for a vendor to construct...companies leverage their older workstations. The client environment is uniform and consistent at all stations, **reducing** administrative **overhead**. Of course, bear in mind that this model requires a great deal of bandwidth because...

...after installation. Interfaces to maintain users and jobs weren't flexible to scaling to large **batch** tasks. The architecture was ad hoc even though the software was rich in administrative tools...own path to interoperability.

Currently, there are other models that view client/server interaction

as **transactions** and messages at a higher level, such as Microsoft's Component Object Model (COM), whereas...

19971006

? s message or messages or messaging

Processing

Processing

3444294 MESSAGE

1396256 MESSAGES

825547 MESSAGING

S22 4893844 S MESSAGE OR MESSAGES OR MESSAGING

? d ss

>>>E: Set s does not exist

? d s

Set Items Description

S1 59501753 S PD<20030627 AND PD>19970627

S2 941 S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))

S3 13877 S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))

S4 93768 S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)

S5 2687449 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)

S6 112314 S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)

S7 151931 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

S8 157 S S1 AND (S2 OR S3) AND (S6 OR S7)

S9 646220 S BATCH OR BATCHED OR BATCHING OR BATCHES

S10 1282404 S AGGREGATE OR AGGREGATES OR AGGREGATED OR AGGREGATING

S11 30569274 S GROUP OR GROUPS OR GROUPING OR GROUPED

S12 167696 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION)

S13 539783 S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S14 176789 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)(5N)(OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S15 313 S S1 AND (S2 OR S3) AND (S13 OR S14)

S16 219 S S15 AND (S9 OR S10 OR S11)

S17 1530956 S ACCUMULATE OR ACCUMULATES OR ACCUMULATED OR ACCUMULATING OR ACCUMULATION OR ACCUMULATIONS

S18 55 S S15 AND S9

S19 54 RD (unique items)

S20 5595240 S TRANSACTION OR TRANSACTIONS OR TRANSACTION-BASED OR (TRANSACTION(W)BASED) OR TRANSACT OR TRANSACTED OR TRANSACTING

S21 45 S S18 AND S20

S22 4893844 S MESSAGE OR MESSAGES OR MESSAGING

? s s21 and s22

45 S21

4893844 S22

S23 41 S S21 AND S22

? t s41/free/all

>>>E: Set 41 does not exist

? t s23/free/all

>>>W: "FREE" is not a valid format name in file(s): 347-349

23/8/1 (Item 1 from file: 275)

Gale Group Computer DB(TM)

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02192900 **Supplier Number: 20229290 (Use Format 7 Or 9 For FULL TEXT )**

**Comdex Fall '97: a look at the future of building systems. (includes related articles on chip development, RISC vs CISC) (Industry Trend or Event)**

Jan 19 , 1998

**Word Count: 22365 Line Count: 01681**

**Special Features:** chart; graph; illustration

**Descriptors:** Trade Show Report; Publishing Industry; Comdex-Fall

**Product/Industry Names:** 7372000 (Computer Software); 3573000 (Computers & Peripherals)

**SIC Codes:** 7372 Prepackaged software; 3571 Electronic computers  
**File Segment:** CD File 275

23/8/2 (Item 1 from file: 16)  
Gale Group PROMT(R)  
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09372568 **Supplier Number:** 82016417 (USE FORMAT 7 FOR FULLTEXT)

**Claims administration. (Insurance Administration).(Buyers Guide)**  
Jan 15 , 2002  
**Word Count:** 3501  
**Publisher Name:** CMP Media, Inc.  
**Event Names:** \*330 (Product information )  
**Geographic Names:** \*1USA (United States )  
**Product Names:** \*6322000 (Health Insurance); 7372466 (Medical Practice Software)  
**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources )  
**SIC Codes:** 6324 (Hospital and medical service plans); 7372 (Prepackaged software )  
**NAICS Codes:** 524114 (Direct Health and Medical Insurance Carriers); 51121 (Software Publishers )  
**Special Features:** LOB

23/8/3 (Item 2 from file: 16)  
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05273202 **Supplier Number:** 48033383 (USE FORMAT 7 FOR FULLTEXT)

**Unlock your potential**  
Oct 6 , 1997  
**Word Count:** 6920  
**Publisher Name:** InfoWorld Publishing Company  
**Company Names:** \*Advanced Logic Research Inc.; Citrix Systems Inc.; Digital Equipment Corp. ; Hewlett-Packard Co.; Microsoft Corp.; Novell Inc.; 3Com Corp.  
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**Ticker Symbols:** AALR; CTXS; DEC; HWP; MSFT; NOVL; COMS  
**Special Features:** COMPANY

23/8/4 (Item 1 from file: 148)  
Gale Group Trade & Industry DB



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09776432 **Supplier Number:** 19842961 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Unlock your potential. (Novell's IntranetWare 4.11, Microsoft's Systems Management Server 1.2, Citrix's WinFrame 1.7) (includes related articles on the Citrix, Microsoft and Novell solutions including the pros and cons of each; distributed computing environment; a systems administrators needs; Microsoft's Zero Administration Kit for Windows NT) (Software Review)(Evaluation)**

Oct 6 , 1997

**Word Count:** 7215 **Line Count:** 00588

**Special Features:** table; illustration

**Company Names:** Citrix Systems Inc.--Products; Microsoft Corp.--Products; Novell Inc.-- Products

**Industry Codes/Names:** BUSN Any type of business; CMPT Computers and Office Automation

**Descriptors:** Network software--Evaluation; Network management software--Evaluation; Network operating systems--Evaluation

**Product/Industry Names:** 7372611 (Network Management Software); 7372620 (Network Software); 7372610 (Network Operating Systems & Utilities)

**Product/Industry Names:** 7372 Prepackaged software

**Ticker Symbols:** CTXS; MSFT; NOVL

**Trade Names:** WinFrame 1.7 (Network software)--Evaluation; Microsoft Systems Management Server 1.2 (Network management software)--Evaluation; IntranetWare 4.11 (Network operating system)--Evaluation

**File Segment:** CD File 275

>>>W: "FREE" is not a valid format name in file(s): 347-349

? s s18 and s22

55 S18

4893844 S22

S24 46 S S18 AND S22

? t s24/free/all

>>>W: "FREE" is not a valid format name in file(s): 347-349

24/8/1 (Item 1 from file: 15)

ABI/Inform(R)

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02184121 74278124

**\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***

**App dread**

**Word Count:** 946 **Length:** 2 Pages

Jun 18, 2001

**Geographic Names:** United States; US

**Descriptors:** Technological planning; Systems integration; Enterprise resource planning; Project management



**Classification Codes:** 9190 (CN=United States); 5220 (CN=Information technology management); 5240 (CN=Software & systems)  
**Print Media ID:** 15378

24/8/2 (Item 1 from file: 275)  
Gale Group Computer DB(TM)  
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02192900 **Supplier Number:** 20229290 (Use Format 7 Or 9 For FULL TEXT )  
**Comdex Fall '97: a look at the future of building systems. (includes related articles on chip development, RISC vs CISC) (Industry Trend or Event)**

Jan 19 , 1998  
**Word Count:** 22365 **Line Count:** 01681

**Special Features:** chart; graph; illustration  
**Descriptors:** Trade Show Report; Publishing Industry; Comdex-Fall  
**Product/Industry Names:** 7372000 (Computer Software); 3573000 (Computers & Peripherals)  
**SIC Codes:** 7372 Prepackaged software; 3571 Electronic computers  
**File Segment:** CD File 275

24/8/3 (Item 1 from file: 16)  
Gale Group PROMT(R)  
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09372568 **Supplier Number:** 82016417 (USE FORMAT 7 FOR FULLTEXT)

**Claims administration. (Insurance Administration).(Buyers Guide)**  
Jan 15 , 2002  
**Word Count:** 3501  
**Publisher Name:** CMP Media, Inc.  
**Event Names:** \*330 (Product information )  
**Geographic Names:** \*1USA (United States )  
**Product Names:** \*6322000 (Health Insurance); 7372466 (Medical Practice Software)  
**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation); INSR (Insurance and Human Resources )  
**SIC Codes:** 6324 (Hospital and medical service plans); 7372 (Prepackaged software )  
**NAICS Codes:** 524114 (Direct Health and Medical Insurance Carriers); 51121 (Software Publishers )  
**Special Features:** LOB

24/8/4 (Item 2 from file: 16)  
Gale Group PROMT(R)  
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08730560 **Supplier Number:** 75636620 (USE FORMAT 7 FOR FULLTEXT)

**AppDREAD; Application developers can make life difficult for network pros, unless you set some ground rules.(Technology Information)**

June 18 , 2001

**Word Count:** 968

**Publisher Name:** Network World, Inc.

**Company Names:** \*PacifiCare Health Systems Inc.; PeopleSoft Inc.

**Event Names:** \*310 (Science & research )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372415 (Human Resources Management Software)

**Industry Names:** TELC (Telecommunications )

**SIC Codes:** 7372 (Prepackaged software )

**NAICS Codes:** 51121 (Software Publishers )

**Ticker Symbols:** PHSYA; PSFT

**Special Features:** COMPANY

24/8/5 (Item 3 from file: 16)

Gale Group PROMT(R)

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05273202 **Supplier Number:** 48033383 (USE FORMAT 7 FOR FULLTEXT)

**Unlock your potential**

Oct 6 , 1997

**Word Count:** 6920

**Publisher Name:** InfoWorld Publishing Company

**Company Names:** \*Advanced Logic Research Inc.; Citrix Systems Inc.; Digital Equipment Corp. ; Hewlett-Packard Co.; Microsoft Corp.; Novell Inc.; 3Com Corp.

**Event Names:** \*330 (Product information); 600 (Market information - general )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372502 (Operating Systems); 3573200 (Computer Peripherals); 3573125 (Information Appliances); 3573102 (Servers (Computers))

**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation )

**NAICS Codes:** 51121 (Software Publishers); 33411 (Computer and Peripheral Equipment Manufacturing); 334111 (Electronic Computer Manufacturing )

**Ticker Symbols:** AALR; CTXS; DEC; HWP; MSFT; NOVL; COMS

**Special Features:** COMPANY

24/8/6 (Item 1 from file: 148)

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09776432 **Supplier Number:** 19842961 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Unlock your potential. (Novell's IntranetWare 4.11, Microsoft's Systems Management Server 1.2, Citrix's WinFrame 1.7) (includes related articles on the Citrix, Microsoft and Novell solutions including the pros and cons of each; distributed computing environment; a systems administrators needs; Microsoft's Zero Administration Kit for Windows NT) (Software Review)(Evaluation)**

Oct 6 , 1997

Word Count: 7215 Line Count: 00588

**Special Features:** table; illustration

**Company Names:** Citrix Systems Inc.--Products; Microsoft Corp.--Products; Novell Inc.-- Products

**Industry Codes/Names:** BUSN Any type of business; CMPT Computers and Office Automation

**Descriptors:** Network software--Evaluation; Network management software--Evaluation; Network operating systems--Evaluation

**Product/Industry Names:** 7372611 (Network Management Software); 7372620 (Network Software); 7372610 (Network Operating Systems & Utilities)

**Product/Industry Names:** 7372 Prepackaged software

**Ticker Symbols:** CTXS; MSFT; NOVL

**Trade Names:** WinFrame 1.7 (Network software)--Evaluation; Microsoft Systems Management Server 1.2 (Network management software)--Evaluation; IntranetWare 4.11 (Network operating system)--Evaluation

**File Segment:** CD File 275

>>>W: "FREE" is not a valid format name in file(s): 347-349

? t s24/k/4

24/K/4 (Item 2 from file: 16)

Gale Group PROMT(R)

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...problem. Testing application performance, running optimized database queries and integrating applications with authentication systems greatly **reduces** the network **impact** of a **fat client**.

The infrastructure in many offices just isn't made to handle a data-intensive network...

...100 lines of code can be condensed into 10 lines for displaying data in one **batch**.

Another practice for minimizing the network load involves storing data in one Oracle table rather...

...developers wrote the application so its audit logs recognize specific activity thresholds and send event **messages** to a central monitoring application when triggered, rather than requiring administrators to check every application...

20010618

? t s24/7/4

24/7/4 (Item 2 from file: 16)

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08730560 Supplier Number: 75636620 (THIS IS THE FULLTEXT)

**AppDREAD; Application developers can make life difficult for network pros, unless you set some ground rules.(Technology Information)**

Gaspar, Suzanne

Network World , p 51

June 18 , 2001

**Text:**

The request from the human resources department tossed PacificCare's IT staff deep into a project they knew little about. HR had secured approval from upper management to buy a PeopleSoft enterprise resource planning application, and now they needed IT to deploy it.

Jeffrey Ballard, regional manager of IT for the HMO in Cypress, Calif., says his group knew little about the application. Poor communication between the IT department and those who had authorized the project, along with a failure to test the application on the network, made for a difficult deployment. "When we did install, we ran into just about every problem," he says.

The application didn't run well with other software on the desktops. The client machines weren't up to speed. The server was sized for 40 clients, not the 500 users who eventually surfaced. The 10M bit/sec network connection provided poor access. "The equipment at the local office was very old and slow, and never made to shovel that much data around," Ballard says.

Rolling out complex applications like PeopleSoft typically requires software and hardware upgrades. IT executives say the best solution is for application developers to write code capable of running at slower connection speeds.

But short of that, there are still some steps you can take to alleviate the problem. Testing application performance, running optimized database queries and integrating applications with authentication systems greatly **reduces** the network **impact** of a **fat client**.

The infrastructure in many offices just isn't made to handle a data-intensive network load, Ballard says. Most applications work fine when you test them on the LAN but performance begins to suffer when you put them on the WAN.

Ballard recommends testing to the lowest common denominator. Deploy the application to 10 offices, look at all the connections, and test using the worst connection. If the application works with that connection, it

will work with the rest of them, he says.

PacifiCare's IT department now uses a consistent approach to rolling out new applications to make sure there's sufficient bandwidth. IT evaluates the connections to desktops, servers and remote office gear, and handles everything from installation through deployment and support so as to build skills with each application.

Randall Oehrle, network administrator for the city of Overland Park, Kan., survived a PeopleSoft installation in 1999 and is gearing up to deploy JD Edwards' OneWorld ERP application.

While the native PeopleSoft client is almost unusable across his network's T-1 WAN links, the 1.6G-byte OneWorld client will be a bandwidth hog even on the LAN. "Nobody takes the time to optimize code anymore, assuming everybody's got fiber-optic cable and unlimited bandwidth," he says.

IT would like to upgrade the city's 100M bit/sec Ethernet backbone to Gigabit Ethernet, but the funding is not available.

"Users will feel their Word is running slow, their directories just don't pop up anymore or their print job is taking longer than usual," Oehrle says in describing the complaints he expects to hear after the JD Edwards rollout takes place.

However, performance may not be bad for those who access the ERP application over the WAN. Oehrle plans to equip remote users with a browser-based client, which should reduce the network load by minimizing data transfer. The browser-based client includes extensive Java libraries that he wants to install on the clients rather than have users access them on the server over the WAN.

Oehrle is also hoping the JD Edwards developers have optimized the application's code to run fast against the Oracle database. For example, 100 lines of code can be condensed into 10 lines for displaying data in one **batch**.

Another practice for minimizing the network load involves storing data in one Oracle table rather than replicating the same data in several tables for multiple access.

Oehrle also recommends running an Oracle optimization routine against your database to find the fastest way to get the data you want. This process also flags redundant SQL statements. The fewer SQL statements the database has to cache, the faster the application performs.

Chris Resch, CTO for document equipment provider OfficeWare in Cincinnati, says developers can improve application performance through benchmark testing.

He says they should use performance-monitoring tools to get a baseline, then zero in on specific aspects of the application they can improve.

At the very least, Resch says, applications should integrate with standard performance-monitoring tools.

For example, Microsoft's Windows NT tools provide access to reports that can pinpoint a problem with the local server or a communication issue with the client.

He says it would be useful if developers wrote the application so its audit logs recognize specific activity thresholds and send event **messages** to a central monitoring application when triggered, rather than requiring administrators to check every application's log file.

Moreover, Resch suggests tying the new application into your existing authentication database to ease manageability. Ideally, developers should write applications to support systems for assigning permissions and authenticating users.

"If you have multiple applications and each one has its own way of setting security, it's difficult to go to all those separate applications to make changes," he says.

Applications that take advantage of Microsoft's Active Directory, NT domain or Novell Directory Services would let administrators use groups and structures already in place.

Advice about bandwidth conservation is rampant.

"It's in everybody's best interest to communicate," Ballard says

"I don't want phone calls from my boss because somebody's complaining of slow response. No one wants an application that's not going to be successful," he adds.

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? s client-in-charge or client(2w)charge

Processing

0	CLIENT-IN-CHARGE
3628784	.CLIENT
6659645	CHARGE
1137	CLIENT(2W)CHARGE
S25	1137 S CLIENT-IN-CHARGE OR CLIENT(2W)CHARGE

? d s

Set	Items	Description
S1	59501753	S PD<20030627 AND PD>19970627
S2	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))
S3	13877	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(CENTRIC OR HEAVY OR FAT))
S4	93768	S (REDUCE OR REDUCES OR REDUCING OR REDUCTION OR REDUCTIONS)(5N)(OVERHEAD)
S5	2687449	S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY)



S6 112314 S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD)

S7 151931 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS)

S8 157 S S1 AND (S2 OR S3) AND (S6 OR S7)

S9 646220 S BATCH OR BATCHED OR BATCHING OR BATCHES

S10 1282404 S AGGREGATE OR AGGREGATES OR AGGREGATED OR AGGREGATING

S11 30569274 S GROUP OR GROUPS OR GROUPING OR GROUPED

S12 167696 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION)

S13 539783 S (REDUCE OR REDUCES OR REDUCING OR REDUCED OR REDUCTION OR REDUCTIONS) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S14 176789 S (MINIMIZE OR MINIMIZES OR MINIMIZED OR MINIMIZING OR MINIMAL OR MINIMALLY) (5N) (OVERHEAD OR IMPACT OR TRAFFIC OR COMMUNICATION OR COMMUNICATIONS OR CONGESTION OR BANDWIDTH)

S15 313 S S1 AND (S2 OR S3) AND (S13 OR S14)

S16 219 S S15 AND (S9 OR S10 OR S11)

S17 1530956 S ACCUMULATE OR ACCUMULATES OR ACCUMULATED OR ACCUMULATING OR ACCUMULATION OR ACCUMULATIONS

S18 55 S S15 AND S9

S19 54 RD (unique items)

S20 5595240 S TRANSACTION OR TRANSACTIONS OR TRANSACTION-BASED OR (TRANSACTION(W)BASED) OR TRANSACT OR TRANSACTED OR TRANSACTING

S21 45 S S18 AND S20

S22 4893844 S MESSAGE OR MESSAGES OR MESSAGING

S23 41 S S21 AND S22

S24 46 S S18 AND S22

S25 1137 S CLIENT-IN-CHARGE OR CLIENT(2W)CHARGE

? s s1 or (s2 or s3) and s25

>>>W: Disk space full

Workspace is full

>>>E: There is no result

?

Totals										
Session Totals	26.2680	\$83.48		Telecom	\$22.54					\$114.05

Ended session: 3/27/07 3:15:25 PM

? Logon

\*\*\* It is now 3/27/07 3:18:48 PM \*\*\*

## Welcome to DialogLink - Version 5 Revolutionize the Way You Work!

### New on Dialog Enhanced Derwent World Patents Index Now Available

The enhanced *Derwent World Patents Index*<sup>®</sup> (*DWPI*<sup>SM</sup>) (Files 350,351,352) is now available on Dialog. The improvements implemented in *DWPI* on Dialog further extend the database's rich content set and enhances overall functionality of the database.

In addition to distilled expert analysis reflected in *DWPI* expanded titles and abstracts, other enhancements include original patent filing details, multiple patent images, easy cut-and-paste patent family data, and much more.

The new templates include new features that will help you manage and distribute your *DWPI* search results in an attractive format.

Learn about all of the new *DWPI* enhancements and report templates at <http://www.dialog.com/dwpi>.

#### DialogLink 5 Release Notes

New features available in the latest release of DialogLink 5 (November 2005)

- Ability to resize images for easier incorporation into DialogLink Reports
- New settings allow users to be prompted to save Dialog search sessions in the format of their choice (Microsoft Word, RTF, PDF, HTML, or TEXT)
- Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database
- Support for connections to STN Germany and STN Japan services

*Autha Search*



Show Preferences for details

? Help Off Line

\* \* \*

Connecting to Rob Pond - Dialog - 264751

Connected to Dialog via SMS00318

? d s

>>>I: No sets currently exist

? Please enter a command or be logged off in 5 minutes

? Logoff

Estimated Cost Summary

Project		Client		Charge Code		Searcher		Job		Service Code	User Number
						Rob Pond				51	264751
Date		Time		SessionID		Subsession		Subaccount			
03/27/2007		14:49:10		43		2					
Data Base	Dial Units	Access Charge	Print Credit	Types	Prints	Report	Rank	Links	CSS	Total	
415	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Sub Totals	0.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Session Totals	0.2400	\$0.00		Telecom	\$2.77					\$2.77	

Ended session: 3/27/07 3:49:12 PM

?

Logon

\*\*\* It is now 4/29/07 12:17:23 AM \*\*\*

## **Welcome to DialogLink - Version 5 Revolutionize the Way You Work!**

### **New on Dialog**

#### **Enhanced Derwent World Patents Index Now Available**

The enhanced *Derwent World Patents Index*<sup>®</sup> (*DWPI*<sup>SM</sup>) (Files 350,351,352) is now available on Dialog. The improvements implemented in *DWPI* on Dialog further extend the database's rich content set and enhances overall functionality of the database.

In addition to distilled expert analysis reflected in *DWPI* expanded titles and abstracts, other enhancements include original patent filing details, multiple patent images, easy cut-and-paste patent family data, and much more.

The new templates include new features that will help you manage and distribute your *DWPI* search results in an attractive format.

Learn about all of the new *DWPI* enhancements and report templates at <http://www.dialog.com/dwpi>.

#### **DialogLink 5 Release Notes**

New features available in the latest release of DialogLink 5 (November 2005)

- Ability to resize images for easier incorporation into DialogLink Reports
- New settings allow users to be prompted to save Dialog search sessions in the format of their choice (Microsoft Word, RTF, PDF, HTML, or TEXT)
- Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database
- Support for connections to STN Germany and STN Japan services

Show Preferences for details

? Help Log On Msg

\*\*\* ANNOUNCEMENTS \*\*\*

\*\*\*

NEW FILES RELEASED

\*\*\*BIOSIS Previews Archive (File 552)  
\*\*\*BIOSIS Previews 1969-2007 (File 525)  
\*\*\*Engineering Index Backfile (File 988)  
\*\*\*Trademarkscan - South Korea (File 655)

RESUMED UPDATING

\*\*\*File 141, Reader's Guide Abstracts

\*\*\*

RELOADS COMPLETED

\*\*\*File 5, BIOSIS Previews - archival data added  
\*\*\*Files 340, 341 & 942, CLAIMS/U.S. Patents - 2006 reload now online

\*\*\*

DATABASES REMOVED

Chemical Structure Searching now available in Proux Science Drug  
Data Report (F452), Proux Science Drugs of the Future (F453),  
IMS R&D Focus (F445/955), Pharmaprojects (F128/928), Beilstein  
Facts (F390), Derwent Chemistry Resource (F355) and Index Chemicus  
(File 302).

\*\*\*

>>>For the latest news about Dialog products, services, content<<<  
>>>and events, please visit What's New from Dialog at <<<  
>>><http://www.dialog.com/whatsnew/>. You can find news about<<<  
>>>a specific database by entering HELP NEWS <file number>.<<<

? Help Off Line

\* \* \*

Connecting to Rob Pond -\ Dialog - 264751

Connected to Dialog via SMS00304

? B 15, 9, 610, 810, 275, 476, 624, 621, 636, 613, 813, 16, 160, 634, 148, 20, 35, 583,  
65, 2, 474, 475, 99, 256, 348, 349, 347, 635, 570, PAPERSMJ, PAPERSEU, 47

[File 15] ABI/Inform(R) 1971-2007/Apr 28

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[File 9] **Business & Industry(R)** Jul/1994-2007/Apr 27

(c) 2007 The Gale Group. All rights reserved.

[File 610] **Business Wire** 1999-2007/Apr 27

(c) 2007 Business Wire. All rights reserved.

*\*File 610: File 610 now contains data from 3/99 forward. Archive data (1986-2/99) is available in File 810.*

[File 810] **Business Wire** 1986-1999/Feb 28

(c) 1999 Business Wire . All rights reserved.

[File 275] **Gale Group Computer DB(TM)** 1983-2007/Apr 27

(c) 2007 The Gale Group. All rights reserved.

[File 476] **Financial Times Fulltext** 1982-2007/Apr 29

(c) 2007 Financial Times Ltd. All rights reserved.

[File 624] **McGraw-Hill Publications** 1985-2007/Apr 25

(c) 2007 McGraw-Hill Co. Inc. All rights reserved.

*\*File 624: Homeland Security & Defense and 9 Platt energy journals added Please see HELP NEWS624 for more*

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Apr 26

(c) 2007 The Gale Group. All rights reserved.

[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/Apr 26

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[File 613] **PR Newswire** 1999-2007/Apr 27

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*\*File 613: File 613 now contains data from 5/99 forward. Archive data (1987-4/99) is available in File 813.*

[File 813] **PR Newswire** 1987-1999/Apr 30

(c) 1999 PR Newswire Association Inc. All rights reserved.

[File 16] **Gale Group PROMT(R)** 1990-2007/Apr 27

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[File 160] **Gale Group PROMT(R)** 1972-1989

(c) 1999 The Gale Group. All rights reserved.

[File 634] **San Jose Mercury Jun** 1985-2007/Apr 22

(c) 2007 San Jose Mercury News. All rights reserved.

[File 148] **Gale Group Trade & Industry DB** 1976-2007/Apr 27

(c)2007 The Gale Group. All rights reserved.

[File 20] **Dialog Global Reporter** 1997-2007/Apr 28

(c) 2007 Dialog. All rights reserved.

[File 35] **Dissertation Abs Online** 1861-2007/Apr

(c) 2007 ProQuest Info&Learning. All rights reserved.

[File 583] **Gale Group Globalbase(TM)** 1986-2002/Dec 13

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*\*File 583: This file is no longer updating as of 12-13-2002.*

[File 65] **Inside Conferences** 1993-2007/Apr 27

(c) 2007 BLDSC all rts. reserv. All rights reserved.

[File 2] **INSPEC** 1898-2007/Apr W3

(c) 2007 Institution of Electrical Engineers. All rights reserved.

[File 474] **New York Times Abs** 1969-2007/Apr 28

(c) 2007 The New York Times. All rights reserved.

[File 475] **Wall Street Journal Abs** 1973-2007/Apr 27

(c) 2007 The New York Times. All rights reserved.

[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2007/Mar

(c) 2007 The HW Wilson Co. All rights reserved.

[File 256] **TecInfoSource** 82-2007/Apr

(c) 2007 Info.Sources Inc. All rights reserved.

[File 348] **EUROPEAN PATENTS** 1978-2007/ 200716

(c) 2007 EUROPEAN PATENT OFFICE. All rights reserved.

*\*File 348: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.*

[File 349] **PCT FULLTEXT** 1979-2007/UB=20070419UT=20070312

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*\*File 349: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.*

[File 347] **JAPIO** Dec 1976-2006/Dec(Updated 070403)

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[File 635] **Business Dateline(R)** 1985-2007/Apr 28

(c) 2007 ProQuest Info&Learning. All rights reserved.

[File 570] **Gale Group MARS(R)** 1984-2007/Apr 27

(c) 2007 The Gale Group. All rights reserved.

[File 387] **The Denver Post** 1994-2007/Apr 26

(c) 2007 Denver Post. All rights reserved.

[File 471] **New York Times Fulltext** 1980-2007/Apr 28

(c) 2007 The New York Times. All rights reserved.

[File 492] **Arizona Repub/Phoenix Gaz** 19862002/Jan 06

(c) 2002 Phoenix Newspapers. All rights reserved.

*\*File 492: This file is no longer updating.*

[File 494] **St LouisPost-Dispatch** 1988-2007/Apr 25

(c) 2007 St Louis Post-Dispatch. All rights reserved.

[File 631] **Boston Globe** 1980-2007/Apr 27

(c) 2007 Boston Globe. All rights reserved.

[File 633] **Phil.Inquirer** 1983-2007/Apr 27

(c) 2007 Philadelphia Newspapers Inc. All rights reserved.

[File 638] **Newsday/New York Newsday** 1987-2007/Apr 27

(c) 2007 Newsday Inc. All rights reserved.

[File 640] **San Francisco Chronicle** 1988-2007/Apr 27

(c) 2007 Chronicle Publ. Co. All rights reserved.

[File 641] **Rocky Mountain News** Jun 1989-2007/Apr 28

(c) 2007 Scripps Howard News. All rights reserved.

[File 702] **Miami Herald** 1983-2007/Mar 25

(c) 2007 The Miami Herald Publishing Co. All rights reserved.

[File 703] **USA Today** 1989-2007/Apr 27

(c) 2007 USA Today. All rights reserved.

[File 704] **(Portland)The Oregonian** 1989-2007/Apr 27

(c) 2007 The Oregonian. All rights reserved.

[File 713] **Atlanta J/Const.** 1989-2007/Apr 27

(c) 2007 Atlanta Newspapers. All rights reserved.

[File 714] **(Baltimore) The Sun** 1990-2007/Apr 27

(c) 2007 Baltimore Sun. All rights reserved.

[File 715] **Christian Sci.Mon.** 1989-2007/Apr 27

(c) 2007 Christian Science Monitor. All rights reserved.

[File 725] **(Cleveland)Plain Dealer** Aug 1991-2007/Apr 27

(c) 2007 The Plain Dealer. All rights reserved.

[File 735] **St. Petersburg Times** 1989- 2007/Apr 27

(c) 2007 St. Petersburg Times. All rights reserved.

[File 477] **Irish Times** 1999-2007/Apr 27

(c) 2007 Irish Times. All rights reserved.

[File 710] **Times/Sun.Times(London)** Jun 1988-2007/Apr 28

(c) 2007 Times Newspapers. All rights reserved.

[File 711] **Independent(London)** Sep 1988-2006/Dec 12

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*\*File 711: Use File 757 for full current day's news of the Independent, as as well as full coverage of many additional European news sources.*

[File 756] **Daily/Sunday Telegraph** 2000-2007/Apr 27

(c) 2007 Telegraph Group. All rights reserved.

[File 757] **Mirror Publications/Independent Newspapers** 2000-2007/Apr 27

(c) 2007. All rights reserved.

[File 47] **Gale Group Magazine DB(TM)** 1959-2007/Apr 16

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? S AU=(rippingale, j? OR rippingale j? OR ((jan or janice)(2N)rippingale))

>>>W: One or more prefixes are unsupported

or undefined in one or more files.

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      0  AU=RIPPINGALE, J?
      8  AU=RIPPINGALE J?
59441  AU=JAN
      8318  AU=JANICE
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or undefined in one or more files.

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145482  AU=SUSAN
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S2      2  S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN) (2N)POTTISH))
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? t s1/k/all

1/K/1 (Item 1 from file: 348)  
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Inventor:

• RIPPINGALE, Jan

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Country		Number	Kind	Date	
Type			Pub. Date	Kind	Text
Available Text			Language	Update	Word Count
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

1/K/2 (Item 2 from file: 348)  
EUROPEAN PATENTS  
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Inventor:  
• RIPPINGALE, John, B...  
;;

Country	Number	Kind	Date		
Type		Pub. Date		Kind	Text
Available Text		Language		Update	Word Count
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

1/K/3 (Item 3 from file: 348)  
EUROPEAN PATENTS  
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Inventor:  
• Rippingale, John...  
;;

<u>Country</u>	<u>Number</u>	<u>Kind</u>	<u>Date</u>		
<b>Type</b>		<b>Pub. Date</b>		<b>Kind</b>	<b>Text</b>
<b>Available Text</b>		<b>Language</b>		<b>Update</b>	<b>Word Count</b>
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

1/K/4 (Item 1 from file: 349)  
PCT FULLTEXT  
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Patent Applicant/Inventor:  
• RIPPINGALE Jan  
;;;

Country	Number	Kind	Date
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1/K/5 (Item 2 from file: 349)  
PCT FULLTEXT  
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<b>Country</b>	<b>Number</b>	<b>Kind</b>	<b>Date</b>
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1/K/6 (Item 3 from file: 349)  
PCT FULLTEXT  
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<b>Country</b>	<b>Number</b>	<b>Kind</b>	<b>Date</b>
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1/K/7 (Item 4 from file: 349)  
PCT FULLTEXT  
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<b>Country</b>	<b>Number</b>	<b>Kind</b>	<b>Date</b>
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1/K/8 (Item 5 from file: 349)  
PCT FULLTEXT  
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<b>Country</b>	<b>Number</b>	<b>Kind</b>	<b>Date</b>
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Set	Items	Description
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8 S1

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Duplicate detection is not supported for File 349.

Duplicate detection is not supported for File 347.

Records from unsupported files will be retained in the RD set.

S5 6 RD (UNIQUE ITEMS)

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5/7/1 (Item 1 from file: 348)

EUROPEAN PATENTS

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00447284

**METHODS AND APPARATUS EMPLOYING PERMANENT MAGNETS FOR MARKING, LOCATING,  
TRACING AND IDENTIFYING HIDDEN OBJECTS SUCH AS BURIED FIBER OPTIC CABLES.**

VERFAHREN UND VORRICHTUNG MIT PERMANENTMAGNETEN ZUM MARKIEREN, ORTEN,  
VERFOLGEN UND IDENTIFIZIEREN VON VERBORGENEN OBJEKTEN WIE VERGRABENEN  
LICHTWELLENLEITERN.

PROCEDES ET APPAREIL EMPLOYANT DES AIMANTS PERMANENTS POUR MARQUER, LOCALISER,  
SUIVRE ET IDENTIFIER DES OBJETS CACHES TELS QUE DES CABLES A FIBRE OPTIQUE ENTERR

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	Country	Number	Kind	Date	
Patent	EP	419637	A1	19910403	(Basic)
	EP	419637	A1	19921202	
	EP	419637	B1	19941130	
	WO	9010879		19900920	
Application	EP	90906529		19900207	
	WO	90US748		19900207	
Priorities	US	323860		19890315	
	US	428757		19891030	

**Designated States:**

AT; BE; CH; DE; DK; FR; GB; IT; LI; LU;  
NL; SE;

**International Patent Class (V7):** G01V-003/08; ; **CITED PATENTS: (EP A)**

EP 11536 A; **CITED PATENTS: (WO A)**

US 3568626 A; US 2854840 A; JP 10009977 A; US 4107601 A; US RE30393 E; US 4573016 A; JP 46000480 A;  
JP 54000280 A; FR 2609556 A; DE 3106661 A;

**NOTE:** No A-document published by EPO

Type	Pub. Date	Kind	Text
Lapse:	20000209	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 19941130, BE 19941130, CH 19941130, LI 19941130, DK 19941130, IT 19941130, LU 19950228,
Application:	19910403	A1	Published application (A1with;A2without)
Examination:	19910403	A1	Date of filing of request for examination: 901027
Search Report:	19921202	A1	Drawing up of a supplementary European search report: 921014
Examination:	19930908	A1	Date of despatch of first examination report: 930723
Grant:	19941130	B1	Granted patent
Lapse:	19950719	B1	Date of lapse of the European patent in a Contracting State: AT 941130

Lapse:	19950802	B1	Date of lapse of the European patent in a Contracting State: AT 941130, CH 941130, LI 941130
Lapse:	19950802	B1	Date of lapse of the European patent in a Contracting State: AT 941130, CH 941130, LI 941130
Lapse:	19951011	B1	Date of lapse of the European patent in a Contracting State: AT 941130, BE 941130, CH 941130, LI 941130
Oppn None:	19951122	B1	No opposition filed
Lapse:	19980408	B1	Date of lapse of the European patent in a Contracting State: AT 941130, BE 941130, CH 941130, LI 941130, DK 941130
Lapse:	19991020	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 19941130, BE 19941130, CH 19941130, LI 19941130, DK 19941130, IT 19941130,

Publication: English

Procedural: English

Application: English

Available Text	Language	Update	Word Count
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CLAIMS B	(English)	EPBBF1	1130
CLAIMS B	(German)	EPBBF1	995
CLAIMS B	(French)	EPBBF1	1152
SPEC B	(English)	EPBBF1	3531
Total Word Count (Document A) 0			
Total Word Count (Document B) 6808			
Total Word Count (All Documents) 6808			

**Claims:** EP 419637 B1

1. A method of detecting the location of a hidden elongated cylindrical or tubular object (12), in which said object is provided with an elongated permanent magnet device (10) having its length extending along the length of said object, said device is formed of magnetic material dispersed in said object and the location of said object is detected with a magnetic field detector (14), characterized in that the magnetic material is magnetized transversely of said object to provide a magnetic axis transverse to the length of said object and to provide a magnetic field that varies in a predetermined manner along the length of said object, and that the location of said object is detected by detecting the variations of said magnetic field with said detector.
2. A method in accordance with Claim 1, characterized in that said magnetic axis varies in orientation at different positions along the length of said object.
3. A method in accordance with Claim 1, characterized in that said magnetic field varies repetitively along the length of said object, and said detector detects the repetitive variations of said magnetic field.
4. A method in accordance with Claim 3, wherein said object is buried approximately horizontally beneath the surface of the earth and characterized in that detector is moved over the surface of the earth along a line approximately parallel to the length of said object in order to trace the location of said object.
5. A method in accordance with Claim 4, characterized in that the repetitive variations of said magnetic field produce a series of magnetic field peaks and valleys along said line that are detected by said detector.

6. A method in accordance with Claim 5, characterized in that said detector is of a type having opposite polarity indications corresponding to said peaks and valleys, respectively.
7. A method in accordance with Claim 1, characterized in that both horizontal and vertical components of said magnetic field vary repetitively along the length of said object.
8. A method in accordance with Claim 7, characterized in that said detector detects both said horizontal and vertical components.
9. A method in accordance with Claim 8, characterized in that said detector determines a vector sum of said horizontal and vertical components.
10. A method in accordance with Claim 8, characterized in that said detector determines a scalar sum of said horizontal and vertical components.
11. A method in accordance with Claim 1, characterized in that said detector is a hand-held gradiometer.
12. A method in accordance with Claim 1, characterized in that said device is formed as a helix having a longitudinal axis extending along the length of said object.
13. A method in accordance with Claim 12, characterized in that the longitudinal pitch of said helix is substantially greater than the cross dimensions of said helix.
14. A method in accordance with Claim 13, characterized in that said pitch is of the order of 3.66 m (12 feet).
15. A method in accordance with Claim 1, characterized in that said device is formed so that it has a width dimension substantially greater than a thickness dimension and is magnetized in the direction of its width.
16. A method in accordance with Claim 1, characterized in that said magnetic material is substantially non-conductive.
17. A method in accordance with Claim 1, characterized in that said object is formed of plastic.
18. A method in accordance with Claim 1, characterized in that said object is formed as a tube with the magnetic material dispersed in a wall of the tube.
19. A method in accordance with Claim 1, characterized in that the orientation of said magnetic axis is substantially vertical at regions spaced along the length of said object, and a vertical component of said magnetic field at said regions diminishes at a rate that is substantially less than the cube of the distance from said object in a vertical direction.
20. A method in accordance with Claim 19, characterized in that said rate is substantially the square of said distance.
21. An elongated magnetic device (10) for magnetically detecting the location of a hidden elongated cylindrical or tubular object (12), said device comprising magnetic material dispersed in said object, characterized in that the magnetic material is magnetized transverse to the length of the object so as to have a magnetic axis transverse to its length and so as to provide a magnetic field that varies repetitively along the length of the object in a predetermined manner, thereby to provide a characteristic magnetic field signature capable of detection by a magnetic field detector (14) moved along the length of the object, whereby the location of said object may be detected.
22. An elongated magnetic device in accordance with Claim 21, characterized in that the orientation of said magnetic axis varies repetitively along the length of the object.
23. An elongated magnetic device in accordance with Claim 21, characterized in that the magnetized magnetic material forms a strip in the shape of an elongated helix.



24. An elongated magnetic device in accordance with Claim 23, characterized in that said strip is substantially non-conductive.
25. An elongated magnetic device in accordance with Claim 23, characterized in that said helix has a longitudinal pitch that is substantially greater than the cross-dimensions of said helix.
26. An elongated magnetic device in accordance with Claim 25, characterized in that said pitch is of the order of 3.66 m (12 feet).
27. An elongated magnetic device in accordance with Claim 23, characterized in that the width of said strip is less than the width of said object.
28. An elongated magnetic device in accordance with Claim 23, characterized in that the width of said strip corresponds to the width of said object.
29. An elongated magnetic device in accordance with Claim 21, characterized in that said device comprises a plurality of spaced strips (16 or 17) of magnetic material with their length extending along the length of said object and being magnetized transverse to their length.
30. An elongated magnetic device in accordance with Claim 21, characterized in that said device comprises a plurality of spaced tubes (18 or 20) of magnetic material coaxial with the object and magnetized transverse to their length.
31. An elongated magnetic device in accordance with Claim 21, characterized in that said device comprises a plurality of strips (16 or 17) of magnetic material with their length extending along the length of said object at circumferentially spaced positions on said object and magnetized transverse to their length.
32. An elongated magnetic device in accordance with Claim 31, characterized in that said positions are also spaced longitudinally on said object.
33. An elongated magnetic device in accordance with Claim 21, characterized in that said device comprises a plurality of tubes (18 or 20) of magnetic material spaced along the length of said object and having collinear axes parallel to the length of said object, each tube having a magnetic axis transverse to the length of said object, and the magnetic axes of successive tubes having different orientations.
34. An elongated magnetic device in accordance with Claim 33, characterized in that each tube is defined by a helical strip (20).

**Claims: EP 419637 B1**

1. Verfahren zum Ermitteln der Lage eines verborgenen langlichen zylindrischen oder rohrenformigen Gegenstandes (12), wobei der Gegenstand mit einer langlichen, Permanentmagnetvorrichtung (10) versehen ist, deren Lange sich über die Lange des Gegenstandes erstreckt, wobei die Vorrichtung aus magnetischem Material besteht, das in dem Gegenstand verteilt ist, und die Lage des Gegenstandes mit einem Magnetfelddetektor (14) ermittelt wird, dadurch gekennzeichnet, das das magnetische Material quer zu dem Gegenstand magnetisiert ist, so das eine Magnetachse quer zur Lange des Gegenstandes geschaffen wird und ein Magnetfeld geschaffen wird, das über die Lange des Gegenstandes auf vorgegebene Weise schwankt, und das die Lage des Gegenstandes ermittelt wird, indem die Schwankungen des Magnetfeldes mit dem Detektor erfasst werden.
2. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das die Magnetachse an verschiedenen Positionen über die Lange des Gegenstandes verschieden ausgerichtet ist.
3. Verfahren nach Anspruch 1, dadurch gekennzeichnet, das das Magnetfeld über die Lange des Gegenstandes sich wiederholend schwankt, und das der Detektor die sich wiederholenden Schwankungen des Magnetfeldes erfasst.

4. Verfahren nach Anspruch 3, wobei der Gegenstand annähernd horizontal unterhalb der Erdoberfläche eingegraben ist, und dadurch gekennzeichnet, dass der Detektor über die Erdoberfläche in einer Linie annähernd parallel zur Länge des Gegenstandes bewegt wird, um die Lage des Gegenstandes aufzufinden.
5. Verfahren nach Anspruch 4, dadurch gekennzeichnet, dass die sich wiederholenden Schwankungen des Magnetfeldes eine Reihe von Magnetfeldspitzen und -talern entlang der Linie erzeugen, die von dem Detektor erfasst werden.
6. Verfahren nach Anspruch 5, dadurch gekennzeichnet, dass der Detektor von der Art ist, die entgegengesetzte Polaritätsanzeigen aufweist, die den Spitzen bzw. Talern entsprechen.
7. Verfahren nach Anspruch 1, dadurch gekennzeichnet, dass sowohl horizontale als auch vertikale Komponenten des Magnetfeldes über die Länge des Gegenstandes sich wiederholend schwanken.
8. Verfahren nach Anspruch 7, dadurch gekennzeichnet, dass der Detektor sowohl die horizontalen als auch die vertikalen Komponenten erfasst.
9. Verfahren nach Anspruch 8, dadurch gekennzeichnet, dass der Detektor eine Vektorsumme der horizontalen und vertikalen Komponenten bestimmt.
10. Verfahren nach Anspruch 8, dadurch gekennzeichnet, dass der Detektor eine Skalarsumme der horizontalen und vertikalen Komponenten bestimmt.
11. Verfahren nach Anspruch 1, dadurch gekennzeichnet, dass der Detektor ein Handgradiometer ist.
12. Verfahren nach Anspruch 1, dadurch gekennzeichnet, dass die Vorrichtung als Wendel mit einer Längsachse ausgeformt ist, die sich über die Länge des Gegenstandes erstreckt.
13. Verfahren nach Anspruch 12, dadurch gekennzeichnet, dass die Längssteigung der Wendel erheblich größer ist als die Querabmessungen der Wendel.
14. Verfahren nach Anspruch 13, dadurch gekennzeichnet, dass die Steigung in der Größenordnung von 3,66 m (12 Fuß) liegt.
15. Verfahren nach Anspruch 1, dadurch gekennzeichnet, dass die Vorrichtung so geformt ist, dass ihre Breitenabmessung erheblich größer ist als ihre Dickenabmessung und sie in der Richtung ihrer Breite magnetisiert ist.
16. Verfahren nach Anspruch 1, dadurch gekennzeichnet, dass das magnetische Material im wesentlichen nichtleitend ist.
17. Verfahren nach Anspruch 1, dadurch gekennzeichnet, dass der Gegenstand aus Kunststoff besteht.
18. Verfahren nach Anspruch 1, dadurch gekennzeichnet, dass der Gegenstand als eine Rohre ausgeformt ist, wobei das magnetische Material in einer Wand der Rohre verteilt ist.
19. Verfahren nach Anspruch 1, dadurch gekennzeichnet, dass die Ausrichtung der Magnetachse in Bereichen, die über die Länge des Gegenstandes beabstandet sind, im wesentlichen vertikal ist, und eine vertikale Komponente des Magnetfeldes in den Bereichen in einem Grad abnimmt, der im wesentlichen geringer ist als die dritte Potenz des Abstandes zu dem Gegenstand in einer vertikalen Richtung.
20. Verfahren nach Anspruch 19, dadurch gekennzeichnet, dass der Grad im wesentlichen die zweite Potenz des Abstandes ist.



21. Langliche Magnetvorrichtung (10) zum magnetischen Ermitteln der Lage eines verborgenen langlichen, zylindrischen oder rohrenformigen Gegenstandes (12), wobei die Vorrichtung magnetisches Material umfast, das in dem Gegenstand verteilt ist, dadurch gekennzeichnet, das das magnetische Material quer zur Lange des Gegenstandes magnetisiert ist, so das es eine Magnetachse quer zu seiner Lange aufweist, und so das es ein Magnetfeld erzeugt, das über die Lange des Gegenstandes auf vorgegebene Weise sich wiederholend schwankt, wodurch eine charakteristische Magnetfeldzeichnung entsteht, die von einem Magnetfelddetektor (14) erfasst werden kann, der über die Lange des Gegenstandes bewegt wird, wodurch die Lage des Gegenstandes ermittelt werden kann.
22. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das die Ausrichtung der Magnetachse über die Lange des Gegenstandes sich wiederholend schwankt.
23. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das das magnetisierte magnetische Material einen Streifen in Form einer langlichen Wendel bildet.
24. Langliche Magnetvorrichtung nach Anspruch 23, dadurch gekennzeichnet, das der Streifen im wesentlichen nichtleitend ist.
25. Langliche Magnetvorrichtung nach Anspruch 23, dadurch gekennzeichnet, das die Wendel eine Langssteigung aufweist, die erheblich gröser ist als die Querabmessungen der Wendel.
26. Langliche Magnetvorrichtung nach Anspruch 25, dadurch gekennzeichnet, das die Steigung in der Großenordnung von 3,66 m (12 Fus) liegt.
27. Langliche Magnetvorrichtung nach Anspruch 23, dadurch gekennzeichnet, das die Breite des Streifens kleiner ist als die Breite des Gegenstandes.
28. Langliche Magnetvorrichtung nach Anspruch 23, dadurch gekennzeichnet, das die Breite des Streifens der Breite des Gegenstandes entspricht.
29. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das die Vorrichtung eine Vielzahl beabstandeter Streifen (16 oder 17) aus magnetischem Material umfast, wobei sich ihre Lange über die Lange des Gegenstandes erstreckt und sie quer zu ihrer Lange magnetisiert sind.
30. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das die Vorrichtung eine Vielzahl beabstandeter Rohren (18 oder 20) aus magnetischem Material umfast, die koaxial zu dem Gegenstand sind und quer zu ihrer Lange magnetisiert sind.
31. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das die Vorrichtung eine Vielzahl von Streifen (16 oder 17) aus magnetischem Material umfast, wobei sich ihre Lange über die Lange des Gegenstandes an in Umfangsrichtung beabstandeten Positionen an dem Gegenstand erstreckt und sie quer zu ihrer Lange magnetisiert sind.
32. Langliche Magnetvorrichtung nach Anspruch 31, dadurch gekennzeichnet, das die Positionen auch in Langsrichtung auf dem Gegenstand beabstandet sind.
33. Langliche Magnetvorrichtung nach Anspruch 21, dadurch gekennzeichnet, das die Vorrichtung eine Vielzahl von Rohren (18 oder 20) aus magnetischem Material umfast, die über die Lange des Gegenstandes beabstandet sind, und die kollineare Achsen parallel zur Lange des Gegenstandes haben, wobei jede Rohre eine Magnetachse quer zur Lange des Gegenstandes aufweist, und die Magnetachsen aufeinanderfolgender Rohren unterschiedliche Ausrichtungen haben.
34. Langliche Magnetvorrichtung nach Anspruch 33, dadurch gekennzeichnet, das jede Rohre durch einen wendelformigen Streifen (20) gebildet wird.

**Claims:** EP 419637 B1

1. Procédé de détection de la position d'un objet (12) cylindrique ou tubulaire, allongé, caché, dans lequel ledit objet est pourvu d'un dispositif à magnétisme permanent (10) allongé, dont la longueur s'étend dans la direction longitudinale dudit objet, ledit dispositif étant constitué de matériau magnétique, dispersé dans ledit objet et l'emplacement dudit objet étant détecté à l'aide d'un détecteur de champ magnétique (14), caractérisé en ce que le matériau magnétique est l'objet d'une magnétisation orientée dans la direction transversale dudit objet, pour constituer un axe magnétique transversal par rapport à la direction longitudinale dudit objet et pour constituer un champ magnétique variant de manière prédéterminée dans la longueur dudit objet, et en ce que l'emplacement dudit objet est détecté par la détection des variations dudit champ magnétique, appréhendée à l'aide dudit détecteur.
2. Procédé selon la revendication 1, caractérisé en ce que l'orientation dudit axe magnétique varie en différentes positions de la longueur dudit objet.
3. Procédé selon la revendication 1, caractérisé en ce que ledit champ magnétique varie de façon répétitive sur la longueur dudit objet, et ledit détecteur détecte les variations répétitives dudit champ magnétique.
4. Procédé selon la revendication 3, dans lequel ledit objet est caché à peu près horizontalement sous la surface du sol et caractérisé en ce que le détecteur est déplacé sur la surface du sol, sur une ligne à peu près parallèle à la direction longitudinale dudit objet, de manière à obtenir la trace de l'emplacement dudit objet.
5. Procédé selon la revendication 4, caractérisé en ce que les variations répétitives dudit champ magnétique produisent une série de crêtes et de vallées du champ magnétique, sur ladite ligne, ces crêtes et vallées étant détectées par ledit détecteur.
6. Procédé selon la revendication 5, caractérisé en ce que ledit détecteur est du type donnant des indications de polarités inverses correspondant respectivement auxdites crêtes et vallées.
7. Procédé selon la revendication 1, caractérisé en ce que les composantes horizontales ainsi que les composantes verticales dudit champ magnétique varient de façon répétitive sur la longueur dudit objet.
8. Procédé selon la revendication 7, caractérisé en ce que ledit détecteur détecte à la fois lesdites composantes horizontales et verticales.
9. Procédé selon la revendication 8, caractérisé en ce que ledit détecteur effectue la somme vectorielle desdites composantes horizontales et verticales.
10. Procédé selon la revendication 8, caractérisé en ce que ledit détecteur effectue la somme scalaire desdites composantes horizontales et verticales.
11. Procédé selon la revendication 1, caractérisé en ce que ledit détecteur est un gradiomètre portatif.
12. Procédé selon la revendication 1, caractérisé en ce que ledit dispositif est réalisé en forme d'hélice, avec un axe longitudinal s'étendant dans la direction longitudinale dudit objet.
13. Procédé selon la revendication 12, caractérisé en ce que le pas longitudinal de ladite hélice est sensiblement supérieur aux dimensions transversales de ladite hélice.
14. Procédé selon la revendication 13, caractérisé en ce que ledit pas est de l'ordre de 3,66 m (12 pieds).
15. Procédé selon la revendication 1, caractérisé en ce que ledit dispositif est réalisé de façon à ce que sa largeur soit sensiblement supérieure à son épaisseur et est magnétisée dans la direction de sa largeur.
16. Procédé selon la revendication 1, caractérisé en ce que ledit matériau magnétique est pratiquement non-conducteur.
17. Procédé selon la revendication 1, caractérisé en ce que ledit objet est en matière plastique.

18. Procède selon la revendication 1, caractérise en ce que ledit objet est réalisé sous forme de tube, le matériau magnétique étant dispersé dans la paroi du tube.
19. Procède selon la revendication 1, caractérise en ce que l'orientation dudit axe magnétique est sensiblement verticale en des zones espacées sur la longueur dudit objet, et la composante verticale dudit champ magnétique, en lesdites zones, va en diminuant avec une tendance sensiblement inférieure à la puissance cubique de la distance par rapport audit objet en direction verticale.
20. Procède selon la revendication 19, caractérise en ce que ladite tendance évolue sensiblement comme la puissance carrée de ladite distance.
21. Dispositif magnétique (10) allongé, pour la détection magnétique de l'emplacement d'un objet cylindrique ou tubulaire (12) allongé, cache, ledit dispositif comprenant un matériau magnétique dispersé dans ledit objet, caractérise en ce que le matériau magnétique est l'objet d'une magnétisation orientée transversalement par rapport à la direction longitudinale de l'objet, de façon à avoir un axe magnétique transversal par rapport à sa direction longitudinale et à produire un champ magnétique variant de manière répétitive dans la longueur dudit objet, d'une manière prédéterminée, de manière à produire une signature de champ magnétique caractéristique, susceptible d'être détectée par un détecteur de champ magnétique (14) déplacé sur la longueur de l'objet, faisant que l'emplacement dudit objet peut être détecté.
22. Dispositif magnétique allongé selon la revendication 21, caractérise en ce que l'orientation dudit axe magnétique varie de façon répétitive sur la longueur dudit objet.
23. Dispositif magnétique allongé selon la revendication 21, caractérise en ce que le matériau magnétique magnétise forme une bande ayant la forme d'une hélice allongée.
24. Dispositif magnétique allongé selon la revendication 23, caractérise en ce que ladite bande est pratiquement non conductrice.
25. Dispositif magnétique allongé selon la revendication 23, caractérise en ce que le pas longitudinal de ladite hélice est sensiblement supérieur aux dimensions transversales de ladite hélice.
26. Dispositif magnétique allongé selon la revendication 25, caractérise en ce que ledit pas est de l'ordre de 3,66 m (12 pieds).
27. Dispositif magnétique allongé selon la revendication 23, caractérise en ce que la largeur de ladite bande est inférieure à la largeur dudit objet.
28. Dispositif magnétique allongé selon la revendication 23, caractérise en ce que la largeur de ladite bande correspond à la largeur dudit objet.
29. Dispositif magnétique allongé selon la revendication 21, caractérise en ce que ledit dispositif comprend une pluralité de bandes espacées (16 ou 17), en matériau magnétique, leur longueur étant orientée dans la direction longitudinale dudit objet et leur magnétisation étant orientée dans la direction transversale par rapport à leur longueur.
30. Dispositif magnétique allongé selon la revendication 21, caractérise en ce que ledit dispositif comprend une pluralité de tubes (18 ou 20) espacés, réalisée en un matériau magnétique, placés coaxialement par rapport à l'objet et magnétisés en direction transversale par rapport à leur direction longitudinale.
31. Dispositif magnétique allongé selon la revendication 21, caractérise en ce que ledit dispositif comprend une pluralité de bandes (16 ou 17) en matériau magnétique, leur longueur étant orientée dans la direction longitudinale

dudit objet, en des emplacements espaces circonferentiellement sur ledit objet et leur magnetisation etant orientee dans la direction transversale par rapport a leur longueur.

32. Dispositif magnetique allonge selon la revendication 31, caracterise en ce que lesdits emplacements sont egalement espaces longitudinalement sur ledit objet.
33. Dispositif magnetique allonge selon la revendication 21, caracterise en ce que ledit dispositif comprend une pluralite de tubes (18 ou 20) en materiau magnetique, espaces dans la direction longitudinale dudit objet et ayant des axes colineaires, paralleles a la direction longitudinale dudit objet, chaque tube ayant un axe magnetique transversal par rapport a la direction longitudinale dudit objet, et les axes magnetiques des tubes successifs ayant des orientations differentes.
34. Dispositif magnetique allonge selon la revendication 33, caracterise en ce que chaque tube est defini par une bande helicoidale (20).

5/7/2 (Item 2 from file: 348)  
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00152125

**Apparatus and method employing extraneous field compensation for locating current-carrying objects.**  
Vorrichtung und Verfahren zur Lagebestimmung von stromdurchflossenen Objekten unter Verwendung von extern gelagerter Kompensation.  
Dispositif et procede utilisant des compensations de champs de dispersion pour localiser des objets porteurs de courant.

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	Country	Number	Kind	Date	
Patent	EP	122899	A2	19841024	(Basic)
	EP	122899	A3	19850417	
	EP	122899	B1	19880914	
Application	EP	84850115		19840410	



Priorities	US	483613		19830411	
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**Designated States:**

DE; FR; GB; IT; SE;

**International Patent Class (V7):** G01R-033/025; G01V-003/08; **Abstract** EP 122899 A2

In locating current-carrying objects, such as buried pipes in the presence of extraneous magnetic fields by detecting the magnetic field produced by the current, first and second spaced primary sensors measure the magnetic field at first and second locations, and a compensating sensor measures the extraneous field at a location midway between the first and second locations. The signal from the compensating sensor is combined with the signals from both of the primary sensors so as to compensate for the extraneous magnetic field at the primary sensors. The invention compensates for ambient magnetic fields associated with propagating electromagnetic energy that induces current in an object, and compensates for extraneous magnetic fields produced by current flow in an adjacent object.

**Abstract Word Count:** 132

Type	Pub. Date	Kind	Text
Application:	19841024	A2	Published application (A1with;A2without)
Search Report:	19850417	A3	Separate publication of the European or International search report
Examination:	19851218	A2	Date of filing of request for examination: 851010
Examination:	19870128	A2	Date of despatch of first examination report: 861216
Grant:	19880914	B1	Granted patent
Oppn None:	19890920	B1	No opposition filed

Publication: English

Procedural: English

Application: English

Available Text	Language	Update	Word Count
Total Word Count (Document A)			
Total Word Count (Document B)			
Total Word Count (All Documents)			

5/7/3 (Item 1 from file: 349)

PCT FULLTEXT

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00276408

**METHODS OF DETECTING LOCATION OF MAGNETICALLY-MARKED ELONGATED BURIED OBJECTS**

PROCEDES DE DETECTION DE L'EMPLACEMENT D'OBJETS ALLONGES ENTERRES POURVUS DE DISPOSITIFS DE MARQUAGE MAGNETIQUES

**Patent Applicant/Patent Assignee:**

• SCHONSTEDT INSTRUMENT COMPANY;  
;;

	Country	Number	Kind	Date
Patent	WO	9424584	A1	19941027
Application	WO	94US3328		19940328
Priorities	US	9348068		19930420

**Designated States:** (All protection types applied unless otherwise stated - for applications 2004+)

**Main International Patent Classes (Version 7):**

IPC	Level
G01V-003/08	Main
Publication Language:	English
Filing Language:	
Fulltext word count:	2697

**English Abstract:**

A method of detecting location of a buried magnetically-marked elongated object (12) uses a horizontal gradiometer (14) for measuring the horizontal gradient of components of a magnetic field associated with the buried object (12). The object (12) is preferably provided with a helical permanent magnet marking device (10) magnetized transverse to its length to provide magnetic field components above the surface of the earth that vary periodically along the length of the device (10). The gradiometer has horizontally spaced sensors (S) and is designed to measure variations of the horizontal gradient of a vertical magnetic field component, and to measure variations of the horizontal gradient of a horizontal axial magnetic field component, as the gradiometer (14) is moved along the surface of the earth approximately parallel to the buried permanent magnet marking device (10). The measured gradient variations may be read out individually or as a sum. The method provides improved sensitivity and selectivity, which reduces errors due to magnetic clutter.

**French Abstract:**

Procede de detection de l'emplacement d'un objet (12) allonge enterre pourvu d'un dispositif de marquage magnetique dans lequel on utilise un gradiometre horizontal (14) pour mesurer le gradient horizontal des composantes d'un champ magnetique associe a l'objet enterre (12). L'objet (12) est, de preference, pourvu d'un dispositif (10) de marquage a aimant permanent helicoidal qui est magnetise transversalement a sa longueur pour produire des composantes de champ magnetique au-dessus de la surface du sol qui varient periodiquement sur la longueur du dispositif (10). Le gradiometre comprend des capteurs (5) horizontalement espaces et est concu pour mesurer les variations du gradient horizontal d'une composante verticale du champ magnetique et mesurer les variations du gradient horizontal d'une composante axiale horizontale du champ magnetique a mesure qu'on deplace le gradiometre (14) au-dessus de la surface du sol sensiblement parallelement au dispositif (10) de marquage a aimant permanent enterre. Les variations mesurees du gradient peuvent etre lues de maniere individuelle ou globale. Ce procede ameliore la sensibilite et la selectivite et reduit par consequent les erreurs dues aux echos parasites du champ magnetique.

**Claims:**

1 1. A method of detecting location of an elongated permanent magnet marking device buried beneath the surface of the earth approximately horizontally and magnetized so as to provide a magnetic field component that varies in magnitude periodically along the length of the device, comprising detecting periodic variations of the magnetic field component by moving a horizontal magnetic gradiometer along the surface of the earth substantially parallel to the marking device, so as to measure variations of the horizontal gradient of the magnetic field component.

2 A method of detecting location of an elongated object buried beneath the surface of the earth, comprising burying with said object an elongated permanent magnet marking device with its length extending along the length of the object and magnetized transverse to its length to provide a magnetic axis that is substantially transverse to the length of the marking device and the direction of which varies progressively and periodically along the length of the marking device, so as to provide above the surface of the earth a magnetic field having a vertical component, the magnitude and polarity of which vary periodically along the length of the marking device, and a horizontal component along the length of the marking device, the magnitude and polarity of which vary periodically along the length of the marking device, and detecting periodic variations of the horizontal gradient of at least one of said components by moving along the surface of the earth substantially parallel to the marking device a horizontal magnetic gradiometer having magnetic sensors spaced apart a predetermined distance and oriented so as to be sensitive to a magnetic field component to be sensed.

3 A method in accordance with Claim 2, wherein periodic variations of the horizontal gradients of both of said components are detected.

4 A method in accordance with Claim 3, wherein the distance between the sensors is correlated with the periodicity of said magnetic field components.

5 A method in accordance with Claim 3, wherein signals produced by the detecting of the periodic variations of both of said gradients are summed. 6 1 A method in accordance with Claim 2, wherein the distance between the sensors is correlated with the periodicity of the magnetic field components.

7 A method in accordance with Claim 2, wherein the marking device is formed as a helix. 8 1 A method in accordance with Claim 7, wherein the pitch of the helix is about 12 feet and the magnetic sensors are spaced apart about 4 feet. 9 1 A method in accordance with Claim 7, wherein the pitch of the helix is about 8 feet and the magnetic sensors are spaced apart about 4 feet.

5/7/4 (Item 2 from file: 349)

PCT FULLTEXT

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00194768

**METHODS, APPARATUS AND DEVICES RELATING TO MAGNETIC MARKERS FOR ELONGATED HIDDEN OBJECTS**

**PROCEDES, APPAREILS ET DISPOSITIFS RELATIFS A DES MARQUEURS MAGNETIQUES D'OBJETS ALLONGES CACHES**

**Patent Applicant/Patent Assignee:**

• **SCHONSTEDT INSTRUMENT COMPANY;**

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	Country	Number	Kind	Date
Patent	WO	9112119	A1	19910822
Application	WO	91US636		19910130
Priorities	US	90447		19900209

**Designated States:** (All protection types applied unless otherwise stated - for applications 2004+)

#### **Main International Patent Classes (Version 7):**

<b>IPC</b>	<b>Level</b>
B29B-047/06	Main
Publication Language:	English
Filing Language:	
Fulltext word count:	5758

#### **English Abstract:**

A magnetic marker serving to locate, trace, and identify an elongated hidden object, such as a buried utility pipe, duct, conduit, or fiber optic cable, is manufactured by applying magnetic material to a substrate (26) that is elongated and by forming from the material a helical or twisted permanent magnet pattern extending along the length of the substrate. The magnetic material, which may be coextensive with the substrate (26) or applied to a portion only of the substrate, may be formed as a strip (46) coextruded with the substrate (26) and magnetized in the direction of the width of the strip (46). Alternatively, magnetic material may be mixed with the material from which the substrate (26) is extruded or may be coated on the substrate (26). A strip (104) may also be preformed and applied to an elongated object (100) as the object (100) is buried, or the strip (130) may form a separate warning tape that is buried with the object and that is provided with a desired magnetic signature by twisting the strip (130) lengthwise as it is advanced for burial.

#### **French Abstract:**

On produit un marqueur magnetique qui permet de localiser, de depister et d'identifier un objet allonge cache, tel qu'une canalisation, un conduit, une conduite ou un cable a fibre optiques, en appliquant un materiau magnetique sur un substrat (26) allonge et en formant avec le materiau un motif magnetique permanent torsade ou helicoidal qui s'etend dans le sens de la longueur du substrat. Le materiau magnetique, qui recouvre le substrat (26) entierement ou en partie uniquement, peut former une bande (46) extrudee avec le substrat (26) et aimantee dans le sens de la largeur. Alternativement, on peut melanger un materiau magnetique au materiau avec lequel on forme par extrusion le substrat (26) ou on peut enduire le substrat (26) avec le materiau magnetique. On peut egalement preformer une bande (104) et l'appliquer sur un objet allonge (100) avant de l'enterrer, ou la bande (130) peut former une bande separee d'avertissement enterree avec l'objet, a laquelle on donne une signature magnetique voulue par torsion longitudinale de la bande (130) a mesure qu'on l'enterre.

#### **Claims:**

marking, locating, tracing, and identifying hidden elongated objects, such as buried, non-conductive cables (e.g., fiber optic cables) and non-conductive pipes, tubes, ducts, and conduits. In one form of the invention disclosed and claimed in the co-pending applications, a magnetic marker comprises an elongated permanent magnet device that is provided on an elongated hidden object to be detected, with the length of the device extending along the length of the object. The device comprises a helical strip magnetized in the direction of its width. With such a device the orientation of the magnetic axis varies at different positions along the length of the object to provide a magnetic field signature for locating, tracing,

and identifying the object. **Brief Description of the Invention** In one of its broader aspects, the present invention is concerned with methods and apparatus for making a magnetic marker, in which magnetic material is applied to a substrate that is elongated, and in which the material is formed into a permanent magnet helical pattern having a helix axis extending along the length of the substrate. In another of its broader aspects, the invention is concerned with a magnetic marker comprising an elongated, flexible magnetic strip magnetized transverse to its length and twisted lengthwise. In yet another of its broader aspects, the invention is concerned with methods and apparatus for providing elongated magnetic markers in situ as an elongated object is buried. In one form of the invention, a magnetic marking tape is wrapped about the object helically as the object is buried. In another form of the invention, a magnetic marking tape is buried above an elongated object as the object is buried, and the tape is twisted lengthwise as it is advanced for burial. In still another of its broader aspects, the invention is concerned with methods and apparatus for making a magnetically marked plastic tube, in which magnetic particles (provided, e.g., as a suspension) are attracted to the outer surface of a plastic tube by a magnetic field (e.g., from a magnet inserted in the tube) and are adhered to the surface of the tube (e.g., by adhesive) to form a coating of magnetic particles on the surface of the tube.

**Brief Description of the Drawings** The invention will be further described in conjunction with the accompanying drawings, which illustrate preferred and exemplary (best mode) embodiments, wherein: Fig. 1 is a diagrammatic perspective view of apparatus employed in one embodiment of the invention; Fig. 2 is a diagrammatic perspective view of apparatus for synchronizing a rotating magnetic field with a helical magnetic strip; Fig. 3 is a circuit diagram corresponding to the apparatus shown in Fig. 2; Fig. 4 is a diagram illustrating a portion of the apparatus of Figs. 2 and 3 in greater detail; Figs. 5-8 are diagrammatic perspective views of apparatus employed in further embodiments of the invention; Fig. 9 is a diagrammatic perspective view of a magnetic marker tape that may be employed in the invention; and Fig. 10 is a diagrammatic perspective view of apparatus employed in another embodiment of the invention.

**Detailed Description of the Invention** The apparatus 10 shown in Fig. 1 is for the manufacture of plastic duct, pipe, or tubing incorporating a helical magnetic marker, by coextrusion. Apparatus for manufacturing duct having electrical cable extending through it is disclosed, for example, in U.S. Patents 4,508,500 and 4,575,326, incorporated herein by reference. Such apparatus may comprise an extruder 12, one or more sizer/cooler units 14, a drive unit 16, and a take-up spool 18. The extruder 12 may comprise a hopper 20 for supplying resin pellets, such as polyethylene, to a heated extrusion screw 22, which supplies melted plastic under pressure to an extruder head 24 having a die for extruding soft plastic in the form of a cylindrical duct, pipe, or tube 26. The tube is advanced through the sizer/cooler units 14 by the drive unit 16, which may comprise a plurality of motor driven rollers 28 shaped for engagement with the cylindrical surface of the tube. The tube is extruded somewhat oversize and is pulled through holes 30 in a series of sizing plates 32 in the sizer/cooler units. These units may be under vacuum and may contain a cooling water bath. The interior of the tube may be pressurized. In accordance with the invention, a second extruder 34 is provided in tandem with the first extruder. The second extruder comprises a hopper 36 and a heated extrusion screw 38, like the first extruder, but the extruder head 40 of the second extruder comprises a rotatable die 42 with an outlet 44 that rotates slowly about the axis of the cylindrical tube 26. Suitable seals are provided between the rotating and stationary parts of the extrusion head, the rotating parts being driven by a motor (not shown). The material extruded from the die is a plastic base material, such as polyethylene, to which has been added high coercivity magnetic material, such as barium ferrite. The magnetic material employed in the invention is preferably non-conductive and is preferably applied to a non-conductive substrate that is nonmagnetic. As the tube is advanced from the first extruder head 24, the second extruder head 40 applies a strip 46 of magnetic material to the outer surface of the tube, and, by virtue of the rotation of the outlet of the second extruder head, the strip is formed into a long pitch helix having its helix axis parallel to the length of the tube. The pitch of the helical strip will depend upon the rate of rotation of the second extruder head relative to the rate at which the tube is advanced lengthwise. As the assembly of the tube and strip is drawn through the sizing plates 32, the strip becomes embedded in the still soft plastic material of the tube. To form a magnetic marker in accordance with the invention, the strip 46 must be permanently magnetized. For this purpose, two rotating magnetizing heads 48, 50 are shown diagrammatically in Fig. 1. In practice, electromagnetic heads may be used, although permanent magnet heads may also be used if the field intensity is sufficient. Each head is rotated about the axis of the tube by a motor drive (not shown). The first head 48 is an alignment head that aligns and packs the magnetic particles while the plastic is still soft. This head applies a

relatively weak magnetic field to prevent distortion of the magnetic material while the plastic is still soft. The second head 50 applies a much stronger magnetic field after the plastic material has cooled sufficiently to be stable. This head may be much closer to the magnetic material than the first head. In each case, the magnetic field is applied so as to be parallel to the width of the strip of magnetic material. Shown adjacent to each magnetizing head in Fig. 1 is a sensor 52 for synchronizing each head with the rotation of the magnetic strip about the axis of the tube. Many different types of sensors may be employed, including magnetic (e.g., Hall probes), optical, or ultrasonic sensors, for example. Figs. 2 and 3 illustrate a magnetic sensor 54 employed in a circuit with a synchro 56 for maintaining a magnetizing head (e.g., 48) synchronized with the helical strip 46 of magnetic material. As shown in Fig. 2, extruded tube 26 bearing a strip 46 of magnetic material is surrounded by an assembly 54a of three magnetic sensor elements A, B, C. Each sensor element has a magnetic core structure 58 provided with a drive winding 60 and a signal winding 62\*. A similar sensor assembly 54b surrounds a reference sample 64, e.g., a length of plastic pipe bearing a helical magnetic strip 66. The components of sensor assembly 54b corresponding to those of sensor assembly 54a are designated by the same reference characters primed. The signal windings 62' associated with the reference sample will be referred to as feedback windings. The magnetizing head 48 is coupled to synchro 56 by a gear train 68. Although shown diagrammatically, the magnetizing head is preferably an electromagnet having pole pieces that are shaped to provide the desired concentrated magnetic field widthwise of the strip 46. Figs. 4 illustrates a preferred form of each of the sensor elements indicated diagrammatically in Fig. 2. Each sensor element (A, B, or C) comprises an H-shaped core 58, which may be made of ferrite or silicon steel laminations, for example. The drive winding 60 is mounted on the bridge of the core. All of the drive windings may be driven in series, as shown in Fig. 21 from a suitable AC source (a low frequency source, such as a 60 Hz source, or a high frequency source, such as a 6,000 Hz source). The signal winding 62 comprises a pair of coils 62a, 62b wound on opposite ends of one leg of the core. Conductors 70 connected to the remote ends of the coils provide an output. Adjacent ends of the coils are connected to a tap 72 of a potentiometer 74 having a resistance 76 that is connected across the conductors 70. The tap is adjustable for balancing the coils, so that there is no output signal when the sensor element is remote from the magnetic strip 46. The balancing arrangement may also comprise a pair of capacitors 78 connected in series across coils 62a, 62b, at least one of the capacitors being adjustable. When the magnetic strip 46 approaches an end of the core 58, as indicated, by the arrow in Fig. 4, the coils 62a, 62b become unbalanced and produce an AC output signal. Figs. 3 illustrates a circuit that may be employed with the apparatus of Fig. 2 for maintaining the position of the magnetizing head 48 synchronized with the position of the helical strip 46. As shown, the signal windings 62 are connected to inputs of amplifiers 80a, 80b, 80c in opposition to corresponding feedback windings 62'. The outputs of the amplifiers drive the control windings of the synchro 56, it may be assumed that in an initial set-up operation, the magnetizing head 48 is adjusted to the desired position relative to the strip of magnetic material and that the sensor assemblies 54a, 54b are positioned relative to the strip 46 and the strip 46', respectively, so that the synchro

system is in equilibrium. In the example shown in Fig. 3, it is assumed that the synchro system is out of equilibrium and that the magnetic strip being extruded is adjacent to sensor element B, while the reference strip is adjacent to sensor element A. Amplifier 80a therefore produces a negative output, and amplifier 80b produces a positive output. Amplifier 80c produces a zero output. The synchro 56 rotates the magnetizing head 48 until any outputs of the signal windings are cancelled by the outputs of the respective feedback windings, whereupon the position of the magnetizing head will be synchronized with the extruded magnetic strip. In the apparatus shown in Fig. 1, a strip of magnetic material is coextruded with a plastic tube constituting a substrate, so that magnetic material is applied to a portion only of the substrate. In a modification of the invention, the magnetic material is coextensive with the substrate. In such a modification, the second extruder is not used. The magnetic material is mixed with the resin supplied to the first extruder and thus is incorporated in the material from which the tube is extruded. Nevertheless, a helical permanent magnet pattern is formed by rotating the magnetizer heads about the axis of the tube as the tube is advanced from the extruder. The magnetizing field, which is transverse to the length of the tube, may be applied



diametrically across the entire width of the tube, in which case north and south poles are formed at opposite ends of the diameter of the tube in any crosssectional plane, or may be applied across only a portion of the width of the tube, in which case the width of the magnetized strip will be less than the width of the tube. As is apparent, the permanent magnet helical pattern formed by the invention becomes a permanent part of an elongated substrate, such as a tube. As described in the aforesaid co-pending applications, the helical pattern may have a pitch of about 12 feet, for example. The permanent magnet pattern need not be continuous, but may, if desired, be defined by successive segments of magnetic material, which, individually, need not be helical. The pattern may be in the form of a strip or stripe 1/2 inch wide and 1/16 inch thick, for example, but when the magnetic material is distributed throughout the material of the tube, the pattern may have a width equal to the full width of the tube and a thickness equal to the full wall thickness of the tube. In such an embodiment, a diametral magnetic axis "rotates" in successive transverse planes along the length of the elongated substrate, simulating a diametral strip that is twisted about its longitudinal axis. The magnetic pattern is actually constituted by a pair of helical strips, at opposite sides of a "rotating" diametral magnetic axis. Figs 5 illustrates another embodiment of the invention. In Fig. 5, an extruder 82 and sizer/cooler unit 84 are shown diagrammatically. The extruder may comprise a single extrusion head for extruding plastic duct, pipe, or tube (constituting a substrate) from resin mixed with magnetic material, or a dual extrusion head for applying a strip of magnetic material to a substrate by coextrusion. However, unlike the apparatus of Fig. 1, even if the strip is applied by coextrusion, the strip extruder die is stationary, so that a straight strip is applied parallel to the length of the substrate. The magnetic material is magnetized transverse to the length of the substrate by magnetizing heads as in Fig. 1, but they are stationary. In the embodiment of Fig. 5, a tube 86 with magnetic material applied thereto is drawn out of the sizer/cooler unit 84 by a drive unit 88 and is wound upon a take-up spool 90 which rotates about a winding axis 92. To form the magnetic material into a long pitch helix, the take-up spool is also rotated about an axis 94 perpendicular to the winding axis 92 and substantially parallel to the length of the tube advanced from the drive unit. For this purpose, the take-up spool and the drive unit are mounted on a slowly rotating yoke 95, as indicated diagrammatically in Fig. 5e. The rotation of the yoke is transmitted by the relatively stiff plastic being wound on the spool to the relatively soft plastic in the sizer/cooler unit, providing a long-pitch twist that forms the desired helical pattern. Because of the twist imparted to the plastic tube, the drive unit 88 may have an arrangement of rollers that is also twisted to accommodate the twist of the tube. Fig. 5 also illustrates a cable 96, such as a fiber optic cable, being inserted into a duct as it is extruded. The cable is drawn off of one end of a stationary spool 98 and fed into the extruder for insertion into the duct as it is formed. Drawing the cable off of an end of a stationary spool will impart a twist to the cable, which can be removed by the twisting rotation of the take-up spool about axis 94, assuming that the stationary spool 98 is of an appropriate size and that the cable is unwound from the spool 98 in the proper direction. In the foregoing embodiments of the invention, magnetic markers are manufactured concurrently with the manufacture of elongated substrates, such as plastic tubes or ducts. Embodiments will now be described in which elongated objects are provided with magnetic markers in the field, in situ, as the objects are buried in the ground. As shown in Fig. 6, an elongated object 100, such as a conduit or fiber optic cable, is advanced from a rotating supply reel 102 for burial in a trench (not shown). During the advancement of the object, a magnetic marker tape or strip 104 of flexible magnetic material magnetized transverse to its length is pulled off of one end of a stationary supply reel 106 having a central opening 108 through which the elongated object 100 is advanced. The tape is wound on its supply reel in successive turns or layers in a conventional manner. A leading end of the tape is attached to a leading end of the elongated object (adhesively, for example). As the elongated object is advanced, the tape 104 is pulled from its supply reel 106 and wrapped helically about the object 100 (which constitutes a substrate) by virtue of the fact that the point at which the tape leaves the end of its stationary supply reel progresses around the circumference of the reel as successive turns of tape unwind. The tape supply reel 106 may be provided with a shroud 110 surrounding the reel and defining with the outer periphery of the reel a circular slot 112 through which the tape is pulled under tension. Figs 7 shows a modification of the apparatus of Figs 6. In the apparatus of Figs 7 the elongated object 100 being drawn from its rotating supply reel 102 drives a pulley 114, which drives a gear train 116 comprising a plurality of gears, a driving gear 118 being fixed to the pulley and a driven gear 120 being fixed to a hollow shaft 122 that rotates about the elongated object as the object is drawn through the shaft. The hollow shaft supports an arm 124 with a tensioning pulley 126 (tape guide) at its free end. The magnetic marker

tape 104 is advanced over the tensioning pulley from a freely rotating tape reel 128 through which the elongated object 100 is pulled. Rotation of the hollow shaft 122 causes the magnetic marker tape 104 to be wound helically upon the elongated object 100 (the leading end of the tape being affixed to the object). In the foregoing embodiments of the invention, an elongated object supports a helical magnetic marker strip or tape, and the diameter of the helical turns is determined by the diameter of the elongated object. As the diameter of the object is made smaller and smaller, the diameter of the helical turns becomes smaller and smaller, and if the diameter of the object is reduced to zero, i.e., the object is eliminated as a substrate for the magnetic marker, the marker becomes a strip or tape that is merely twisted lengthwise. Due to the twisting, the magnetic axis of the marker varies along the length of the marker and thus produces a magnetic signature with peaks and valleys similar to the signature produced by the helical magnetic markers previously described. In one of the embodiments disclosed in the aforesaid co-pending applications and referred to earlier herein, a magnetic marker is formed by magnetizing a tube diametrically and rotating the magnetic axis progressively in successive cross-sections of the tube along its length. As disclosed in the co-pending applications, such a magnetic marker acts like a magnetic strip that is twisted lengthwise. An embodiment will now be described in which a twisted magnetic tape forms a magnetic marker in association with an elongated object, the twisting of the tape being produced in situ as the object is advanced for burial. Fig. 8 shows a magnetic warning tape 130 being pulled off of one end of a stationary reel 132 on which the tape has been wound in a conventional manner. Due to the fact that the point at which the tape leaves the reel moves progressively along the circumference of the reel as the tape is pulled from the reel, the tape becomes twisted lengthwise, as shown. The length of each twist segment depends upon the diameter of the turns of tape on the reel. The warning tape may be buried in a trench above a fiber optic cable or duct, for example, as the cable or duct is buried in the trench. In the case of a warning tape that is totally supported by an elongated object, it is desirable that the tape be reinforced to prevent breakage if hooked by earth digging equipment. Thus, as shown in Fig. 9, the tape 130 may comprise a plastic magnetic strip 134 formed in a pocket 136 of, and laminated with, a plastic cover 138 having a reinforcing fiber string 140 (or strings) with service loops embedded in the material of the plastic cover. In this embodiment, the plastic cover (or even the matrix material of the strip in which magnetic particles are distributed) constitutes a substrate for the magnetic material. Figs 10 illustrates a modification of the apparatus shown in Fig. 1, in which magnetic material is applied as a coating to the outer surface of an extruded plastic tube. A first extruder 142 extrudes

a soft plastic tube 144, which then passes through a sizer/cooler 146, as in Fig. 1. A second extruder 148 applies a coating of hot melt adhesive to the outer surface of the plastic tube advanced from the sizer/cooler. While the adhesive is still warm and tacky, the adhesive-coated plastic tube passes through a powder application chamber 150 supplied with magnetic powder (e.g., barium ferrite) from a hopper or other source 152. An ultrasonic agitator 154 forms a cloud or suspension of the magnetic powder in the powder application chamber. Magnetic particles adhere to the adhesive as the adhesive-coated plastic tube is advanced through the powder application chamber. A magnet 156 mounted on a support rod 158 is inserted into the portion of the plastic tube in the powder application chamber to attract the magnetic particles to the adhesive coating on the outer surface of the plastic tube, thereby concentrating the magnetic particles into a substantially continuous surface layer 160. A third extruder 162 applies a protective coating 164 of plastic over the magnetic material. The extruders in Fig. 10 are shown diagrammatically for simplicity, but in practice they will include the usual components, including pressurized supplies of the materials to be extruded (e.g., hoppers and extrusion screws, or a metering pump for the hot melt adhesive). Although not shown in Fig. 10, a rotating magnetizer head may be provided between the powder application chamber 150 and the extruder 162 (or after the extruder 162) to produce a helical magnetic pattern in the magnetic material coating. The magnetic field may be applied across the full width of the plastic tube or across only a portion of the width. The apparatus and method illustrated in Fig. 10 may be used to provide spaced bar magnets employed in some of the embodiments of the aforesaid S.N. 418757 wherein longitudinally magnetized segments of a plastic tube provide a characteristic magnetic signature that depends upon the polarity of successive magnetized segments. In such embodiments, the magnetic material may be applied to the plastic tube periodically (as by periodic interruption of the supply of



magnetic powder), and the resultant segments of magnetic material may be magnetized longitudinally by one or more magnetizer heads that apply a longitudinal magnetic field to the segments of magnetic material with a polarity appropriate to the desired polarity of the magnetized segments. The apparatus shown in Fig. 10 has at least two advantages over the modified apparatus of Fig. 1 in which the second extruder is eliminated and the magnetic material is mixed with the plastic from which the tube is extruded. First, it eliminates the need to mix or compound the magnetic material with the plastic, avoiding the difficulty of extruding heavily loaded plastic. Second, it eliminates gaps between magnetic particles, increasing the magnetic strength while yielding a tube with superior properties. As set forth in the co-pending applications, buried elongated objects provided with magnetic markers in accordance with the invention may be detected by a magnetic field measuring device or gradiometer. When a magnetic detector is moved over the ground along the length of the buried object, a unique magnetic field signature is produced comprising a series of positive and negative excursions (peaks and valleys) in the output of the detector. This signature is produced by a helical or twisted permanent magnet pattern (which causes the orientation of the magnetic axis to vary), or by the additive/subtractive fields of successive longitudinally magnetized magnetic segments, and is quite useful in identifying the buried object and in distinguishing the object from other objects, such as ferrous gas and water pipes, that produce random positive and negative excursions. Buried objects, such as fiber optic cables, are located, traced, and identified at substantial distances, easily and reliably, by virtue of the magnetic markers of the invention. While preferred embodiments of the invention have been shown and described, it will be apparent to those skilled in the art that changes can be made in these embodiments without departing from the principles and spirit of the invention, the scope of which is defined in the appended claims. The invention claimed is:

- 1 A method of making a magnetic marker, comprising applying magnetic material to a substrate that is elongated, and forming from said material a helical permanent magnet pattern having a helix axis extending along the length of said substrate.
- 2 A method in accordance with Claim 1, wherein said magnetic material is applied so as to be substantially coextensive with said substrate.
- 3e A method in accordance with Claim 1, wherein said magnetic material is applied to a portion only of said substrate.
- 4 A method in accordance with Claim 1, wherein said pattern is formed as a helical strip magnetized in the direction of its width.
- 5a A method in accordance with Claim 1, wherein said substrate is formed as an extruded tube.
- 6a A method in accordance with Claim 5, wherein said magnetic material is applied to said substrate by coextrusion with said tube.
- 7 A method in accordance with Claim 5, wherein said magnetic material is applied to said substrate by mixing the magnetic material with material from which said tube is extruded.
- 8 A method in accordance with Claim 1, wherein said substrate is formed as a cylinder that is advanced along its length and wherein said magnetic material is applied to said substrate from an extruder die having an outlet that rotates about the axis of said cylinder as the cylinder is advanced along its length.
- 9w A method in accordance with Claim 8, wherein said magnetic material is magnetized by a magnetic field that rotates about the axis of said cylinder in synchronism with the rotation of said die.
- 10o A method in accordance with Claim 1, wherein said substrate is formed as an extruded cylinder that advances along its length and that is taken up by rotation of a take-up spool about a winding axis, wherein said magnetic material is applied to said cylinder as a strip extending substantially parallel to the length of the cylinder as the cylinder is extruded, and wherein the strip is thereafter formed into said helical pattern by rotating the take-up spool about an axis substantially perpendicular to said winding axis and substantially parallel to the length of said cylinder.
- lie A method in accordance with Claim 1, wherein said substrate is formed as a duct.
- 12\* A method in accordance with Claim 11, wherein a cable is inserted into said duct as the duct is formed.
- 13 Apparatus for making a magnetic marker, comprising means for providing a substrate that is elongated, means for applying magnetic material to said substrate, and means for forming from said material a helical permanent magnet pattern having a helix axis extending along the length of said substrate.
- U1 -7
- 14 Apparatus in accordance with Claim 13,

wherein said applying means applies said magnetic material so as to be substantially coextensive with said substrate,

15 Apparatus in accordance with Claim 13,

wherein said applying means applies said magnetic material to a portion only of said substrate,

16 Apparatus in accordance with Claim 13,,

wherein said forming means forms said pattern as a helical strip magnetized in the direction of its width,

17 Apparatus in accordance with Claim 13,

wherein said providing means provides said substrate in the form of an extruded tube,

18 Apparatus in accordance with Claim 17,

wherein said applying means comprises means for coextruding said magnetic material with said tube.

19 Apparatus in accordance with Claim 17,

wherein said applying means comprises means for applying said magnetic material mixed with material from which said tube is extruded.

20 Apparatus in accordance with Claim 13,

wherein said providing means comprises means for forming said substrate as a cylinder that is advanced along its length, and wherein said applying means comprises an extruder die having an outlet that rotates about the axis of said cylinder as the cylinder is advanced along its length, said magnetic material being applied to said cylinder from said outlet,

21 Apparatus in accordance with Claim 20,

wherein said forming means comprises means for magnetizing said magnetic material with a magnetic field that rotates about the axis of said cylinder in synchronism with the rotation of said die.

22 Apparatus in accordance with Claim 13,

wherein said providing means comprises means for extruding said substrate as a cylinder that advances along its length and a take-up spool that rotates about a winding axis for winding the cylinder thereon, wherein said applying means applies said magnetic material to said cylinder as a strip extending substantially parallel to the axis of the cylinder as the cylinder is extruded, and wherein said forming means comprises means for rotating said take-up spool about an axis substantially perpendicular to said winding axis and substantially parallel to the length of said cylinder.

23 Apparatus in accordance with Claim 13,

wherein said providing means forms said substrate as a duct,

24 Apparatus in accordance with Claim 23,

further comprising means for inserting a cable into said duct as the duct is formed.

25 A method of providing a magnetic marker on an elongated object, comprising advancing said object lengthwise from a supply reel, and helically winding a transversely magnetized tape about said object as said object is advanced.

26 A method in accordance with Claim 25, wherein said tape is wound on a tape supply reel through which said object is advanced and is unwound from said tape supply reel as it is wound helically about said object,

27 A method in accordance with Claim 26, wherein said tape supply reel is maintained stationary during the unwinding of said tape therefrom and wherein the tape is pulled off of an end of said tape supply reel as it is wound about said object.

28 A method in accordance with Claim 26, wherein said tape supply reel rotates about said elongated object as said tape is pulled off of said tape supply reel, and wherein, as said tape is pulled off of said tape supply reel, it passes over a tape guide that rotates about said elongated object as the object is advanced.

29 A method of providing an elongated magnetic marker having a magnetic field that varies along its length, comprising magnetizing an elongated tape transverse to its length, and twisting the tape lengthwise.

30 A method in accordance with Claim 29, wherein the tape is twisted by pulling it off of one end of a stationary reel on which the tape is wound.

31 A magnetic marker comprising an elongated flexible strip of magnetic material magnetized transverse to its length and twisted lengthwise,



32 A method of making a magnetically marked plastic tube, comprising inserting a magnet into a plastic tube, providing a suspension of magnetic particles externally of the plastic tube in the vicinity of the magnet, so that the magnetic particles are attracted to the plastic tube by the field of the magnet, and adhering the attracted magnetic particles to the outer surface of the tube to form a coating of magnetic particles on the outer surface of the tube,33\* A method in accordance with Claim 32, wherein the magnetic particles are adhered to the plastic tube by an adhesive coating on the outer surface of the plastic tube,34\* A method in accordance with Claim 33 further comprising applying a protective coating to the coating of magnetic material,

35 Apparatus for making a plastic tube bearing a magnetic marker, comprising means for extruding a plastic tube, means for supplying magnetic particles, means for providing a magnetic field that attracts said magnetic particles to a surface of the tube, and means for adhering the attracted magnetic particles to said surface of the tube whereby a coating of magnetic particles is formed on said surface,

36 Apparatus in accordance with Claim 35, wherein said means for providing said plastic tube comprises an extruder, said means for providing said magnetic field comprises a magnet inserted into said plastic tube, and said means for providing magnetic particles comprises means for forming a cloud of magnetic particles around the exterior of said plastic tube,

37 Apparatus in accordance with Claim 36, wherein said adhering means comprises means for coating said plastic tube with an adhesive.

38 Apparatus in accordance with Claim 36 further comprising means for forming a protective coating over said coating of magnetic particles.

5/7/5 (Item 3 from file: 349)

PCT FULLTEXT

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00177413

**METHODS AND APPARATUS EMPLOYING PERMANENT MAGNETS FOR MARKING, LOCATING, TRACING AND IDENTIFYING HIDDEN OBJECTS SUCH AS BURIED FIBER OPTIC CABLES**  
**PROCEDES ET APPAREIL EMPLOYANT DES AIMANTS PERMANENTS POUR MARQUER, LOCALISER, SUIVRE ET IDENTIFIER DES OBJETS CACHES TELS QUE DES CABLES A FIBRE OPTIQUE ENTERRES**

**Patent Applicant/Patent Assignee:**

• **SCHONSTEDT INSTRUMENT COMPANY;**

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	Country	Number	Kind	Date
Patent	WO	9010879	A1	19900920
Application	WO	90US748		19900207
Priorities	US	89860		19890315
	US	89757		19891030

**Designated States:** (All protection types applied unless otherwise stated - for applications 2004+)

**Main International Patent Classes (Version 7):**

<b>IPC</b>	<b>Level</b>
G01V-003/08	Main
G01V-03:165	
F16L-55:00	
H02G-09:00	
H01F-07:02	
Publication Language:	English
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Fulltext word count:	6366

**English Abstract:**

In order to locate, trace, and identify hidden elongated objects (12), such as buried fiber optic cables, the objects (12) are provided with elongated permanent magnet identifier devices having magnetic fields that may be detected at a distance from the objects. In one embodiment, the identifier device comprises an elongated strip (10) magnetized in the direction of its width and formed into a long-pitch helix, producing a characteristic "magnetic field signature" that enhances detection and identification of the object, as by a portable gradiometer (14) that is moved over the surface of the earth along a line generally parallel to the length of the object. This embodiment may provide a magnetic field that diminishes as the square of the distance from the identifier device (rather than the usual cube of the distance), thereby enabling detection at substantial distances. In a second embodiment distinctive magnetic field signatures are produced by arrays of spaced permanent magnets (M), the fields of which add and subtract to provide resultant magnetic fields with peaks and valleys along a line generally parallel to the length of the object.

**French Abstract:**

Afin de localiser, de suivre, et d'identifier des objets allongés cachés (12), tels que des câbles à fibre optique enterrés, lesdits objets (12) sont munis de dispositifs d'identification à aimants permanents allongés dont les champs magnétiques peuvent être détectés à une certaine distance desdits objets. Dans un mode de réalisation, ledit dispositif d'identification comprend une bande allongée (10) magnétisée dans le sens de sa largeur, et ayant la forme d'une hélice à pas long, produisant "une signature de champ magnétique" caractéristique permettant la détection et l'identification de l'objet, à l'aide d'un gradiomètre portatif (14) déplacé sur la surface de la terre le long d'une ligne sensiblement parallèle à la longueur de l'objet. Ce mode de réalisation peut produire un champ magnétique diminuant avec le carré de la distance à partir dudit dispositif d'identification (à la place habituellement du cube de la distance), permettant ainsi une détection à des distances importantes. Dans un second mode de réalisation des signatures de champ magnétique distinctives sont produites par des réseaux d'aimants permanents espacés (M), dont les champs magnétiques s'additionnent et se soustraient afin de produire des champs magnétiques comportant des sommets et des vallées le long d'une ligne sensiblement parallèle à la longueur de l'objet.

**Claims:**

1 A method of detecting an elongated hidden object, comprising providing on said object an elongated permanent magnet device with its length extending along the length of the object and with a magnetic axis transverse to the length of said object, said device having a magnetic field the strength of which diminishes substantially as the square of the distance from the device along a direction transverse to the length of the object; and detecting said magnetic field. 2o A method in accordance with Claim 1, wherein said device produces a characteristic magnetic field signature and wherein the detecting of said magnetic field detects said signature. 3o A method in accordance with Claim 2, wherein said device is formed as a helix having a

longitudinal axis extending along the length of said object.

4 A method in accordance with Claim 3, wherein

said device is formed so that the longitudinal pitch of said helix is substantially greater than the cross dimensions of said helix. 5v A method in accordance with Claim 4, wherein said device is formed so that said pitch is of the order of twelve feet. 6a A method in accordance with Claim 1, wherein said device is formed so that it has a width

dimensions substantially greater than its thickness dimension and is magnetized in the direction of its width,

7 A method in accordance with claim 6, wherein

said device is formed of a strip of substantially nonconductive material. So A method in accordance with Claim 1, wherein said device is attached to a surface of said object, 9o A method in accordance with Claim 1, wherein said

device is incorporated in said object, 10o A method in accordance with Claim 1, wherein said object is buried beneath the surface of the earth and said detecting comprises moving a magnetic field detector over the surface of the earth in the vicinity of the object. 11o A method in accordance with Claim 10, wherein said detecting comprises moving said

detector along a line substantially parallel to the length of said object, 12a A method in accordance with Claim 1,

wherein said detecting comprises sensing at least one component of said magnetic field. 13o A method in accordance with Claim 12, wherein said detecting comprises indicating variations in said component.

14 A method of detecting a hidden elongated

object, comprising providing on said object an elongated permanent magnet device having its length extending along the length of said object and having a magnetic axis transverse to the length of said object, said device having a magnetic field that varies in a predetermined manner along the length of said object. E.-; and detecting said magnetic

field. 15o A method in accordance with Claim 14, wherein said device is formed as a helix having a longitudinal axis extending along the length of said object, and wherein said device is formed so that the longitudinal pitch of said helix is substantially greater than the cross dimensions of said helix.

16 A method in accordance with Claim 14, wherein

said device is formed so that it has a width dimensions substantially greater than its thickness dimension and is magnetized in the direction of its width. 17e A method in accordance with Claim 14, wherein said device is formed as

a strip of substantially nonconductive material. 18a A method in accordance with claim 14, wherein said object is buried beneath the surface of the earth and said detecting comprises moving a magnetic field detector over the surface of the earth in the vicinity of the object. 19a A tracing device for an elongated object, comprising an elongated strip

having a width dimensions substantially greater than its thickness dimension, said strip being magnetized in the direction of its width and being formed into a helix,

20 A device in accordance with Claim 19, wherein

said strip is substantially nonconductive.

21 A device in accordance with Claim 19, wherein

said helix has a longitudinal axis extending along the length of said object.

22 A device in accordance with Claim 21, wherein

said helix has a longitudinal pitch that is substantially greater than the cross dimensions of said helix.

23 A device in accordance with Claim 22, wherein

said pitch is of the order of twelve feet.

24 A device in accordance with Claim 19, wherein

said strip is attached to a surface of said object.

25 A device in accordance with Claim 19, wherein

said strip is incorporated into said object,

26 In combination with an elongated non-magnetic

object to be detected, an elongated strip on said object, said strip having a width dimensions substantially greater than its thickness dimension and being magnetized in the direction of its width, said strip being formed into a helix and having a magnetic field that varies in a predetermined manner along the length of said object.

27 A combination in accordance with Claim 26,

wherein said helix has a longitudinal pitch that is substantially greater than the cross dimensions of said helix.

28 A combination in accordance with Claim 26,

wherein said pitch is of the order of twelve feet,29a A combination in accordance with Claim 26, wherein said strip is substantially non-conductive,30e A method of detecting a hidden elongated object, comprising providing on said object an elongated permanent magnet device having its length extending along the length of said object and having a magnetic axis that is transverse to the length of said object and that varies in orientation at different positions along the length of said object to provide a magnetic field that varies in a predetermined manner along the length of said object; and detecting said magnetic field.31o A method in accordance with Claim 30, wherein said object is buried beneath the surface of the earth and said detecting comprises moving a magnetic field detector over the surface of the earth along a line substantially parallel to the length of said object.

32 In combination with an elongated non-magnetic object to be detected, an elongated permanent magnet device on said object having its length extending along the length of said object, said device having a magnetic axis that is transverse to the length of said object and that has different orientations at positions along the length of said object.

33 A combination in accordance with Claim 32, wherein said device is helical and has a helix axis along the length of said object.

34 A combination in accordance with Claim 32, wherein said device comprises a plurality of spaced strips.

35 A combination in accordance with Claim 32, wherein said device comprises a plurality of spaced tubes.

36 A combination in accordance with Claim 32, wherein said device comprises a plurality of strips extending along the length of said object at circumferentially spaced positions on said object,

37 A combination in accordance with Claim 36, wherein said positions are also spaced longitudinally of said object.

38 A combination in accordance with Claim 32, wherein said device comprises a plurality of tubes spaced along the length of said object and having collinear axes parallel to the length of said object, each tube having a magnetic axis transverse to the length of said object, and the magnetic axes of successive tubes having different orientations.

39 A combination in accordance with Claim 38, wherein each tube is defined by a helical strip.

40 A method of locating, tracing, and

identifying a hidden elongated object, comprising providing on said object a series of permanent magnets, said series extending along the length of said object, said permanent magnets being constructed and disposed! so that magnetic fields of successive magnets add or subtract, producing a resultant magnetic field having a predetermined magnetic field signature including a series of peaks and valleys at points along a line substantially parallel to the length of said object; and locating, tracing, - and identifying said object by moving a magnetic field detector along said line and producing an output from said detector corresponding to said peaks and valleys.41\* A method in accordance with Claim 40, wherein said magnets are constructed and disposed so that magnetic fields of successive magnets are additive to produce peaks and/or valleys at points along said line of greater magnitude than would be produced by individual magnets.42a A method in accordance with Claim 40, wherein the output produced from said detector is of the type having opposite polarity indications corresponding to said peaks and valleys, respectively.

43 In combination with an elongated non-magnetic object to be detected, a series of spaced permanent magnets supported on said object and extending along the length of said object, said magnets having -magnetic axes parallel to the length of said object and being constructed and disposed so that magnetic fields of successive magnets add or subtract, producing a resultant magnetic field having a



predetermined magnetic field signature including a series of peaks and valleys at points along a line substantially parallel to the length of said object,

44 A combination in accordance with Claim 43, wherein some of successive magnets of said series have the same polarity and others of successive magnets of said series have opposite polarities.

45 A combination in accordance with Claim 43, wherein successive magnets are constructed and disposed so that magnetic fields thereof are additive to produce peaks and/or valleys along said line of greater magnitude than would be produced by individual magnets.

46 A method of locating, tracing, and identifying a plurality of hidden elongated objects, comprising providing on each of said objects a corresponding series of permanent magnets extending along the length of the object, the permanent magnets of each series being constructed and disposed so that magnetic fields of successive magnets add or subtract, producing a resultant magnetic field having a predetermined magnetic field signature including a series of peaks and valleys at points along a line substantially parallel to the length of the object, each series of permanent magnets differing from each of the other series so that the magnetic field signature of each series differs from the magnetic field signature of each of the other series; and moving a magnetic field detector along said line and producing an output from said detector corresponding to said peaks and valleys.

47\* A method of locating, tracing, and identifying a hidden elongated object, comprising providing on said object an elongated permanent magnet device having its length extending along the length of said object, said device producing a magnetic field having a predetermined magnetic field signature including a series of peaks and valleys at points along a line substantially parallel to the length of the object, and moving a magnetic field detector along said line and producing an output from said detector corresponding to said peaks and valleys.

48\* A method in accordance with Claim 47, wherein the output produced from said detector is of the type having opposite polarity indications corresponding to said peaks and valleys, respectively.

5/7/6 (Item 4 from file: 349)

PCT FULLTEXT

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00152086

# **MAGNETIC LOCATING AND TRACING SYSTEM AND METHOD USING DUAL-ANTENNA TRANSMITTER**

SYSTEME MAGNETIQUE DE LOCALISATION ET DE SUIVI, ET PROCEDE UTILISANT UN EMETTEUR A DOUBLE ANTENNE

**Patent Applicant/Patent Assignee:**

• **SCHONSTEDT INSTRUMENT COMPANY;**

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	Country	Number	Kind	Date
Patent	WO	8808991	A1	19881117
Application	WO	88US1516		19880503
Priorities	US	87463		19870506

**Designated States:** (All protection types applied unless otherwise stated - for applications 2004+)

**Main International Patent Classes (Version 7):**

<b>IPC</b>	<b>Level</b>
G01V-003/08	Main
Publication Language:	English
Filing Language:	
Fulltext word count:	3397

**English Abstract:**

Locating and tracing of a concealed, elongated, conductive object (C), such as a buried pipe or cable, is enhanced, when a second such object (C') is adjacent to the first (C), by employing a transmitter (T') having a pair of antennae (A, A') that induce distinguishable currents in the respective objects. A receiver (R) movable with respect to the transmitter (T') and with respect to the objects (C, C') produces an output signal dependent upon the sensing of fields associated with both currents. The position of the transmitter (T') relative to the objects (C, C') is adjusted to optimize the output signal.

**French Abstract:**

La localisation et le suivi d'un objet conducteur cache, allongé (C), tel qu'une canalisation ou un câble enfouis sont améliorées, lorsqu'un second objet similaire (C') est adjacent au premier (C), grâce à l'utilisation d'un émetteur (T') ayant une paire d'antennes (A, A') qui induisent des courants pouvant être distingués dans les objets respectifs. Un récepteur (R) mobile par rapport à l'émetteur (T') et par rapport aux objets (C, C') produit un signal de sortie dépendant de la détection de champs associés aux deux courants. La position de l'émetteur (T') par rapport aux objets (C, C') est ajustée pour optimiser le signal de sortie.

**Claims:**

11

1. A system for locating at least one of a pair of concealed, elongated, conductive, adjacent objects, comprises, in combination, a transmitter and a receiver, said transmitter having means including a pair of antennae for inducing a pair of distinguishable alternating currents in said objects, respectively, said receiver being movable relative to said transmitter and to said objects, having means for sensing magnetic fields associated with said currents, respectively, and having means for producing an output signal dependent upon the sensing of both of said fields.
2. A system in accordance with Claim 1, wherein said currents have different carrier frequencies.
3. A system in accordance with Claim 1, wherein said currents are pulsed at different pulsation rates.
4. A system in accordance with Claim 1, wherein said currents have the same carrier frequency but different modulation frequencies.
5. A system in accordance with Claim 1, wherein said output signal producing means comprises means for producing a beat frequency signal related to said currents.
6. A system in accordance with Claim 1, wherein said antennae are separated horizontally by about 3-5 feet. 'b12
7. A system in accordance with Claim 1, wherein said sensing means comprises a coil for sensing both of said magnetic fields and for producing a combined signal, and wherein said output signal producing means produces said output signal only when said combined signal is present.

8. A system in accordance with Claim 7, wherein said currents have different carrier frequencies and said combined signal has components corresponding to said different carrier frequencies, respectively, and wherein said output signal producing means produces a beat frequency signal from said components.
9. A system in accordance with Claim 7, wherein said currents have different pulsation rates and said combined signal has components corresponding to said different pulsation rates, respectively, and wherein said output signal producing means produces a beat frequency signal from said components.
10. A system in accordance with Claim 7, wherein said currents have different modulation frequencies and said combined signal has components corresponding to said different modulation frequencies, respectively, and wherein said output signal producing means produces a beat frequency signal from said components.
11. A method of locating at least one of a pair of concealed, elongated, conductive, adjacent objects, comprising, producing in said objects a pair of distinguishable alternating currents, respectively, moving with respect to said objects a receiver sensitive to a pair of magnetic fields associated with said currents, respectively, and producing an output signal from said receiver dependent upon the sensing by said receiver of both of said fields.
12. A method in accordance with Claim 11, wherein said output signal is produced in response to a beat frequency signal generated by the sensing of both of said magnetic fields.
13. A method in accordance with Claim 11, wherein said currents are induced in said objects by a pair of antennae.
14. A method in accordance with Claim 11, wherein said currents have different carrier frequencies.
15. A method in accordance with Claim 11, wherein said currents are pulsed at different pulsation rates.
16. A method in accordance with Claim 11, wherein said currents have the same carrier frequency modulated at different frequencies.
17. A method in accordance with Claim 11, wherein said currents are induced in said objects by a transmitter that is positioned over said objects and that is provided with a pair of spaced antennae and wherein said receiver is moved relative to said transmitter.
18. A method in accordance with Claim 17, wherein the position of said transmitter relative to said objects is adjusted to optimize the sensing of said fields by said receiver.
19. A method in accordance with Claim 11, wherein said receiver is moved back and forth transversely of said objects and is also moved longitudinally of said objects.
20. A method in accordance with Claim 19, wherein said output signal from said receiver is produced by sensing said magnetic fields in a sensor coil, producing a combined signal from said coil that includes components corresponding to said magnetic fields, and producing a beat frequency signal from said components.
21. A method in accordance with Claim 20, wherein said components have different carrier frequencies.
22. A method in accordance with claim 20, wherein said components have different pulsation rates.
23. A method in accordance with Claim 20, wherein said components have different modulation frequencies.



? s (transaction(w)process???)

Processing

Processing

Processing

Processing

3636556 TRANSACTION

23606096 PROCESS???

S6 239338 S (TRANSACTION(W)PROCESS???)

? d s

Set	Items	Description
-----	-------	-------------

S1	8	S AU=(RIPPINGALE, J? OR RIPPINGALE J? OR ((JAN OR JANICE) (2N) RIPPINGALE))
----	---	---

S2	2	S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN) (2N) POTTISH))
----	---	--

S3	100051618	S PD<20020627
----	-----------	---------------

S4	6	S S3 AND (S1 OR S2)
----	---	---------------------

S5	6	RD (unique items)
----	---	-------------------

S6	239338	S (TRANSACTION(W)PROCESS???)
----	--------	------------------------------

? s client(w)server

Processing

3661247 CLIENT

2395641 SERVER

S7 432902 S CLIENT(W)SERVER

? s client-server

S8 128 S CLIENT-SERVER

? s (heavy or fat)(w)client

Processing

4200035 HEAVY

1073014 FAT

3661247 CLIENT

S9 3810 S (HEAVY OR FAT) (W) CLIENT

? s (heavy or fat) (2n) server? ?

Processing

4200035 HEAVY

1073014 FAT

3007083 SERVER? ?

S10 3407 S (HEAVY OR FAT) (2N) SERVER? ?

? s (heavy or fat) (2n) client? ?

Processing

4200035 HEAVY

1073014 FAT

7375912 CLIENT? ?

S11 8366 S (HEAVY OR FAT) (2N) CLIENT? ?

? s client-in-charge

S12 0 S CLIENT-IN-CHARGE

? s -(s7 or s8) and (s10 or s11)

432902 S7

128 S8

3407 S10

8366 S11

S13 2762 S (S7 OR S8) AND (S10 OR S11)

? s transaction(n) process???

Processing

Processing

Processing

Processing

3636556 TRANSACTION

23606096 PROCESS???

S14 241015 S TRANSACTION (N) PROCESS???

? s s13 and s14

2762 S13

241015 S14

S15 354 S S13 AND S14

? d s

Set	Items	Description
-----	-------	-------------

S1	8	S AU=(RIPPINGALE, J? OR RIPPINGALE J? OR ((JAN OR JANICE) (2N) RIPPINGALE))
----	---	---

S2	2	S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN) (2N) POTTISH))
----	---	--

S3	100051618	S PD<20020627
----	-----------	---------------

S4	6	S S3 AND (S1 OR S2)
----	---	---------------------

S5	6	RD (unique items)
----	---	-------------------

S6	239338	S (TRANSACTION(W) PROCESS???)
----	--------	-------------------------------

S7	432902	S CLIENT(W) SERVER
----	--------	--------------------

S8	128	S CLIENT-SERVER
----	-----	-----------------

S9	3810	S (HEAVY OR FAT) (W) CLIENT
----	------	-----------------------------

S10	3407	S (HEAVY OR FAT) (2N) SERVER? ?
-----	------	---------------------------------

S11	8366	S (HEAVY OR FAT) (2N) CLIENT? ?
-----	------	---------------------------------

S12	0	S CLIENT-IN-CHARGE
-----	---	--------------------

S13	2762	S (S7 OR S8) AND (S10 OR S11)
-----	------	-------------------------------

S14	241015	S TRANSACTION(N) PROCESS???
-----	--------	-----------------------------

S15	354	S S13 AND S14
-----	-----	---------------

? s batch\$\$\$

S16	0	S BATCH\$\$\$
-----	---	---------------

? s batch???

S17	655132	S BATCH???
-----	--------	------------

? s aggregat???

S18	1512741	S AGGREGAT???
-----	---------	---------------

? s accumulat???

S19 1587922 S ACCUMULAT???

? s (reduc??? or minimiz??? or minimal) (5n) (workload or traffic or load???)

Processing

Processing

Processing

Processing

Processing

14391710 REDUC???

1578508 MINIMIZ???

1158911 MINIMAL

230316 WORKLOAD

4001176 TRAFFIC

4095528 LOAD???

S20 280938 S (REDUC??? OR MINIMIZ??? OR MINIMAL) (5N) (WORKLOAD OR TRAFFIC OR LOAD???)

? d s

Set	Items	Description
-----	-------	-------------

S1	8	S AU=(RIPPINGALE, J? OR RIPPINGALE J? OR ((JAN OR JANICE) (2N) RIPPINGALE))
----	---	---

S2	2	S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN) (2N) POTTISH))
----	---	--

S3	100051618	S PD<20020627
----	-----------	---------------

S4	6	S S3 AND (S1 OR S2)
----	---	---------------------

S5	6	RD (unique items)
----	---	-------------------

S6	239338	S (TRANSACTION(W) PROCESS???)
----	--------	-------------------------------

S7	432902	S CLIENT(W) SERVER
----	--------	--------------------

S8	128	S CLIENT-SERVER
----	-----	-----------------

S9	3810	S (HEAVY OR FAT) (W) CLIENT
----	------	-----------------------------

S10	3407	S (HEAVY OR FAT) (2N) SERVER? ?
-----	------	---------------------------------

S11	8366	S (HEAVY OR FAT) (2N) CLIENT? ?
-----	------	---------------------------------

S12	0	S CLIENT-IN-CHARGE
-----	---	--------------------

S13	2762	S (S7 OR S8) AND (S10 OR S11)
-----	------	-------------------------------

S14	241015	S TRANSACTION(N) PROCESS???
-----	--------	-----------------------------

S15	354	S S13 AND S14
-----	-----	---------------

S16	0	S BATCH\$\$\$
-----	---	---------------

S17 655132 S BATCH???

S18 1512741 S AGGREGAT???

S19 1587922 S ACCUMULAT???

S20 280938 S (REDUC??? OR MINIMIZ??? OR MINIMAL) (5N) (WORKLOAD OR TRAFFIC OR LOAD???)

? s s15 and s20

354 S15

280938 S20

S21 56 S S15 AND S20

? rd

>>>W: Duplicate detection is not supported for File 348.

Duplicate detection is not supported for File 349.

Duplicate detection is not supported for File 347.

Records from unsupported files will be retained in the RD set.

S22 49 RD (UNIQUE ITEMS)

? t s49/free/all

>>>E: Set 49 does not exist

? t s21/free/all

>>>W: "FREE" is not a valid format name in file(s): 347-349

21/8/1 (Item 1 from file: 15)

ABI/Inform(R)

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02927967 860346231

**\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***

**An Analysis of the Effects of Continuous Monitoring Controls on e-Commerce System Performance**

**Word Count: 7683 Length: 19 Pages**

Fall 2004

**Descriptors:** Information systems; Studies; Electronic commerce; Online transaction processing; Systems management

**Classification Codes:** 9130 (CN=Experimental/Theoretical); 5220 (CN=Information technology management)

**Print Media ID:** 54038

21/8/2 (Item 2 from file: 15)

ABI/Inform(R)

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01545890 01-96878

**\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***

**Deploying enterprise intranets**

**Word Count: 4320 Length: 9 Pages**

Jan 1998

**Geographic Names: US**

**Descriptors:** World Wide Web; MIS; Java; Technological change; Effects; Intranets

**Classification Codes:** 9190 (CN=United States); 5220 (CN=Data processing management); 5250 (CN=Telecommunications systems)

21/8/3 (Item 3 from file: 15)

ABI/Inform(R)

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01511964 01-62952

**\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***

**Inside Web app functioning**

**Word Count: 4056 Length: 7 Pages**

Sep 29, 1997

**Geographic Names: US**

**Descriptors:** Distributed processing ; Network topologies; Guidelines; Internet; **Client server** computing; Object oriented programming; Middleware; Technological planning

**Classification Codes:** 9190 (CN=United States); 5220 (CN=Data processing management); 5240 (CN=Software & systems); 9150 (CN=Guidelines)

21/8/4 (Item 4 from file: 15)

ABI/Inform(R)

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01095958 97-45352

**\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***

**Oracle exec gives glimpse into company's future**

**Word Count: 732 Length: 2 Pages**

Sep 18, 1995

**Company Names:**

Oracle Corp ( Duns: 08-995-8862 )

**Geographic Names: US**

**Descriptors:** Case studies; Software industry; Market strategy; Product development

**Classification Codes:** 9110 (CN=Company specific); 8302 (CN=Software and computer services); 7000

(CN=Marketing); 9190 (CN=United States)

21/8/5 (Item 5 from file: 15)

ABI/Inform(R)

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00816196 94-65588

**\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***

**Benefits and barriers to client/server computing**

**Word Count: 3838 Length: 7 Pages**

Feb 1994

**Geographic Names: US**

**Descriptors: Client server computing; Advantages; Disadvantages; Implementations**

**Classification Codes: 9190 (CN=United States); 5250 (CN=Telecommunications systems)**

21/8/6 (Item 1 from file: 275)

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02327277 **Supplier Number: 55622138 (Use Format 7 Or 9 For FULL TEXT )**

**Lesson 134: Middleware.(various middleware offerings)(Technology Information)**

Sept 1 , 1999

**Word Count: 2333 Line Count: 00195**

**Geographic Codes/Names: 1USA United States**

**Descriptors: Middleware; Technology overview**

**File Segment: CD File 275**

21/8/7 (Item 2 from file: 275)

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02095878 **Supplier Number: 19690064 (Use Format 7 Or 9 For FULL TEXT )**

**Uniting object-oriented and distributed systems. (Technology Information)**

July , 1997

**Word Count: 5206 Line Count: 00426**

**Descriptors: Technology Overview; Application Development Software; Object-Oriented Programming**

**Product/Industry Names: 7372513 (Application Development Software)**

**SIC Codes: 7372 Prepackaged software**

**Trade Names: PowerBuilder (Application development software)--Usage**

**File Segment: CD File 275**

21/8/8 (Item 3 from file: 275)



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02012171 **Supplier Number: 18862114 (Use Format 7 Or 9 For FULL TEXT )**  
**Integrating the Web with SNA host environments. (Technology Information)**

Nov , 1996  
**Word Count: 7179 Line Count: 00590**

**Special Features:** illustration; chart  
**Descriptors:** Internet/Web Technology; SNA; System Conversion  
**File Segment:** CD File 275

21/8/9 (Item 4 from file: 275)  
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01941532 **Supplier Number: 18303694 (Use Format 7 Or 9 For FULL TEXT )**  
**Performance monitoring in a client/server environment. (Technology Information)**

May , 1996  
**Word Count: 3415 Line Count: 00280**

**Special Features:** illustration; chart  
**Descriptors:** Technology Overview; Client/Server Architecture; Performance Analysis/Diagnostic Software  
**File Segment:** CD File 275

21/8/10 (Item 5 from file: 275)  
Gale Group Computer DB(TM)  
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01844986 **Supplier Number: 17558129 (Use Format 7 Or 9 For FULL TEXT )**  
**Network operating systems: serving up apps. (includes related articles on Editors' Choice, highlights, benchmark tests, NOS and DBMS software)(overview of four evaluations of network operating systems)(individual evaluation records searchable under "Network Operating Systems Serving Up Apps") (Software Review)(Evaluation)**

Oct 24 , 1995  
**Word Count: 4916 Line Count: 00402**

**Special Features:** illustration; photograph; table; chart; graph  
**Company Names:** Microsoft Corp.--Products  
**Descriptors:** Network Operating System; Software Multiproduct Review  
**SIC Codes:** 7372 Prepackaged software  
**Ticker Symbols:** MSFT  
**Trade Names:** Microsoft Windows NT Server 3.5 (Network operating system)--Evaluation  
**File Segment:** CD File 275

21/8/11 (Item 6 from file: 275)  
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01801030 **Supplier Number: 17162448 (Use Format 7 Or 9 For FULL TEXT )**  
**The right cut.(splttng applications)(Client/Server Deployment)**

June 26 , 1995  
**Word Count: 1347 Line Count: 00109**  
**Descriptors: Client/server architecture; Industry Trend**  
**File Segment: CD File 275**

21/8/12 (Item 7 from file: 275)  
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01671064 **Supplier Number: 15064634 (Use Format 7 Or 9 For FULL TEXT )**  
**Benefits and barriers to client/server computing. (IS Management)**

Feb , 1994  
**Word Count: 4142 Line Count: 00360**  
**Descriptors: Client/server architecture; System Conversion; Trends; Management of EDP**  
**File Segment: TI File 148**

21/8/13 (Item 8 from file: 275)  
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01517432 **Supplier Number: 12227070 (Use Format 7 Or 9 For FULL TEXT )**  
**The goal: a real network. (how the testing methodology for the servers was created; includes related article on Structured Query Language Statements) (What's the Right Size?)**

June-July , 1992  
**Word Count: 2878 Line Count: 00208**  
**Special Features: illustration; chart**  
**Descriptors: Testing; DBMS; Methods; Validation; Superserver; Minicomputer; File Server; Design; Performance Measurement**  
**SIC Codes: 3571 Electronic computers; 7372 Prepackaged software**  
**Trade Names: Oracle (Database application development software)--Usage**  
**File Segment: CD File 275**

21/8/14 (Item 9 from file: 275)  
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01465219 **Supplier Number: 11636362 (Use Format 7 Or 9 For FULL TEXT )**

**Give LAN throughput a boost with multiprocessing servers. (local area network superservers) (Buyers Guide)**

Dec , 1991

**Word Count:** 4827 **Line Count:** 00397

**Special Features:** illustration; chart; table

**Descriptors:** File Server; Multiprocessing; LAN; Performance Improvement; Superserver; System Design; Purchases

**SIC Codes:** 3571 Electronic computers

**File Segment:** CD File 275

21/8/15 (Item 1 from file: 621)

Gale Group New Prod.Annou.(R)

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01361931 **Supplier Number:** 46252533 (USE FORMAT 7 FOR FULLTEXT)

**IQ SOFTWARE ANNOUNCES THE AVAILABILITY OF IQ/OBJECTS AND IQ/SMARTSERVER FOR SYBASE IQ**

March 26 , 1996

**Word Count:** 651

**Publisher Name:** PR Newswire Association, Inc.

**Company Names:** \*IQ Software Corp.; Sybase Inc.

**Event Names:** \*380 (Strategic alliances )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372420 (Database Software)

**Industry Names:** BUS (Business, General); BUSN (Any type of business )

**NAICS Codes:** 51121 (Software Publishers )

**Ticker Symbols:** IQSW; SYBS

21/8/16 (Item 1 from file: 813)

PR Newswire

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0928824 ATTU007

**IQ SOFTWARE ANNOUNCES THE AVAILABILITY OF IQ OBJECTS AND IQ SMARTSERVER FOR SYBASE IQ**

**Date:** March 26, 1996

**Word Count:** 628

**Company Name:** IQ SOFTWARE CORPORATION; SYBASE, INC.

**Ticker Symbol:** IQSW (NDQ)

**Product:** COMPUTER, ELECTRONICS (CPR)

**State:** GEORGIA (GA)

**Section Heading: BUSINESS; TECHNOLOGY**

21/8/17 (Item 1 from file: 16)

Gale Group PROMT(R)

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05257576 **Supplier Number: 48011956 (USE FORMAT 7 FOR FULLTEXT)**

**Inside Web App Functioning -- The right hardware and best allocation help get the most out of your system**

Sept 29 , 1997

**Word Count: 4394**

**Publisher Name:** CMP Publications, Inc.

**Event Names:** \*330 (Product information )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372600 (Computer Network & Communications Software); 3573000 (Computers & Peripherals)

**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation); TELC (Telecommunications )

**NAICS Codes:** 51121 (Software Publishers); 334111 (Electronic Computer Manufacturing )

**Special Features:** LOB

21/8/18 (Item 2 from file: 16)

Gale Group PROMT(R)

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05214120 **Supplier Number: 47953477 (USE FORMAT 7 FOR FULLTEXT)**

**Client/Server Versus Web Server Development**

Sept 1 , 1997

**Word Count: 2012**

**Publisher Name:** CMP Publications, Inc.

**Event Names:** \*350 (Product standards, safety, & recalls )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372620 (Network Software)

**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation )

**NAICS Codes:** 51121 (Software Publishers )

21/8/19 (Item 3 from file: 16)

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05032010 **Supplier Number: 47387887 (USE FORMAT 7 FOR FULLTEXT)**

**Web Middleware Glue Binds Web Apps**

May 15 , 1997

**Word Count:** 3921

**Publisher Name:** CMP Publications, Inc.

**Event Names:** \*330 (Product information )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372660 (Computer Data Communications Software)

**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation )

**NAICS Codes:** 51121 (Software Publishers )

21/8/20 (Item 4 from file: 16)

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04875733 **Supplier Number:** 47172243 (USE FORMAT 7 FOR FULLTEXT)

**Building The Internetwork: The basic components are the same, but the options are many. Here's how to hit the bull's-eye with your internetworking solution.**

March 1 , 1997

**Word Count:** 3415

**Publisher Name:** CMP Publications, Inc.

**Event Names:** \*260 (General services )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372612 (Network Configuration Management Software)

**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation )

**NAICS Codes:** 51121 (Software Publishers )

21/8/21 (Item 5 from file: 16)

Gale Group PROMT(R)

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04268079 **Supplier Number:** 46252533 (USE FORMAT 7 FOR FULLTEXT)

**IQ SOFTWARE ANNOUNCES THE AVAILABILITY OF IQ/OBJECTS AND IQ/SMARTSERVER FOR SYBASE IQ**

March 26 , 1996

**Word Count:** 651

**Publisher Name:** PR Newswire Association, Inc.

**Company Names:** \*IQ Software Corp.; Sybase Inc.

**Event Names:** \*380 (Strategic alliances )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372420 (Database Software)

**Industry Names:** BUS (Business, General); BUSN (Any type of business )

**NAICS Codes:** 51121 (Software Publishers )

**Ticker Symbols:** IQSW; SYBS

**Special Features:** COMPANY

21/8/22 (Item 6 from file: 16)

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03905219 **Supplier Number: 45629582 (USE FORMAT 7 FOR FULLTEXT)**

**The right cut**

June 26 , 1995

**Word Count: 1254**

**Publisher Name:** Ziff-Davis Publishing Company

**Event Names:** \*220 (Strategy & planning )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*3573120 (Microcomputers)

**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation )

**NAICS Codes:** 334111 (Electronic Computer Manufacturing )

21/8/23 (Item 1 from file: 148)

Gale Group Trade & Industry DB

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10046785 **Supplier Number: 20347300 (USE FORMAT 7 OR 9 FOR FULL TEXT )**

**Magic works, and costs.(Magic Software Enterprises Magic 8.0) (Software Review)(Evaluation)**

Feb 23 , 1998

**Word Count: 609 Line Count: 00055**

**Company Names:** Magic Software Enterprises--Products

**Industry Codes/Names:** BUSN Any type of business; CMPT Computers and Office Automation

**Descriptors:** Data base management systems--Evaluation

**Product/Industry Names:** 7372421 (DBMS)

**Product/Industry Names:** 7372 Prepackaged software

**Trade Names:** Magic Software Enterprises Magic 8.0 (DBMS)--Evaluation

**File Segment:** CD File 275

21/8/24 (Item 2 from file: 148)

Gale Group Trade & Industry DB

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09787776 **Supplier Number: 19802329 (USE FORMAT 7 OR 9 FOR FULL TEXT )**

**Inside Web app functioning. (Internet/Web/Online Service Information)**

Sep 29 , 1997

**Word Count: 4691 Line Count: 00380**

**Special Features:** table; illustration

**Industry Codes/Names:** BUSN Any type of business; CMPT Computers and Office Automation; TELC Telecommunications

**Descriptors:** World Wide Web--Computer programs

**Product/Industry Names:** 4811500 (Specialized Telecommunication Services)

**Product/Industry Names:** 4822 Telegraph & other communications

**File Segment: CD File 275**

21/8/25 (Item 3 from file: 148)

Gale Group Trade & Industry DB

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09363300 **Supplier Number:** 19219116 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Building the internetwork. (includes related articles on intranet security and Gigabit Ethernet)(VAR Strategy Guide: Internetworking) (Industry Trend or Event)**

March 1 , 1997

**Word Count:** 3543 **Line Count:** 00308

**Special Features:** illustration; table; graph

**Industry Codes/Names:** CMPT Computers and Office Automation; BUSN Any type of business

**Descriptors:** Computer networks--Planning; Value-added resellers--Planning

**Product/Industry Names:** 1623210 (Communications Construction); 3662100 (Communications Equipment ex Broadcast)

**Product/Industry Names:** 1620 Heavy Construction, Except Highway; 3660 Communications Equipment

**File Segment:** CD File 275

21/8/26 (Item 4 from file: 148)

Gale Group Trade & Industry DB

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08552356 **Supplier Number:** 18130466 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**IQ SOFTWARE ANNOUNCES THE AVAILABILITY OF IQ/OBJECTS AND IQ/SMARTSERVER FOR SYBASE IQ**

March 26 , 1996

**Word Count:** 669 **Line Count:** 00064

**Company Names:** IQ Software Corp.--Product introduction; Sybase Inc.--Products

**Industry Codes/Names:** BUS Business, General

**Descriptors:** Computer software industry--Product introduction

**Product/Industry Names:** 7372203 (Database Mgmt Software Pkgs); 7372620 (Networking Software Pkgs)

**Product/Industry Names:** 7372 Prepackaged software

**Ticker Symbols:** IQSW; SYBS; IQSW

**File Segment:** NW File 649

21/8/27 (Item 5 from file: 148)

Gale Group Trade & Industry DB

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08508355 **Supplier Number:** 18062147 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Migration made easier: tech managers are navigating the transition to large online transaction processing, client-server applications. (Technology Information)**



March 4 , 1996

**Word Count:** 3192 **Line Count:** 00290

**Special Features:** illustration; graph

**Industry Codes/Names:** CMPT Computers and Office Automation

**Descriptors:** Client/server architecture--Usage

**Product/Industry Names:** 7372000 (Computer Software)

**Product/Industry Names:** 7372 Prepackaged software

**File Segment:** CD File 275

21/8/28 (Item 6 from file: 148)

Gale Group Trade & Industry DB

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07960068 **Supplier Number:** 17162448 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**The right cut.(splttng applications)(Client/Server Deployment)**

June 26 , 1995

**Word Count:** 1347 **Line Count:** 00109

**Industry Codes/Names:** CMPT Computers and Office Automation

**Descriptors:** Client/server architecture--Programming; Programming (Computers)--Technique

**File Segment:** CD File 275

21/8/29 (Item 7 from file: 148)

Gale Group Trade & Industry DB

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07201352 **Supplier Number:** 15064634 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Benefits and barriers to client/server computing. (IS Management)**

Feb , 1994

**Word Count:** 4142 **Line Count:** 00360

**Industry Codes/Names:** BUS Business, General; CMPT Computers and Office Automation

**Descriptors:** Client/server architecture--Usage; Computer system conversion --Management

**File Segment:** TI File 148

21/8/54 (Item 1 from file: 635)

Business Dateline(R)

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0686369 96-43616

**IQ Software announces the availability of IQ/Objects and IQ/SmartServer for Sybase IQ**

**Publication Date:** 960326

**Word Count:** 573

**Dateline:** Atlanta, GA, US, South Atlantic

**Company Names:** IQ Software Corp, Atlanta, GA, US, SIC:7372,  
**Classification Codes:** 8302 (Software and computer services); 7500 (Product planning & development)  
**Descriptors:** Software industry; Product introduction

21/8/55 (Item 1 from file: 47)  
Gale Group Magazine DB(TM)  
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04346728 **Supplier Number:** 17558129 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
**Network operating systems: serving up apps. (includes related articles on Editors' Choice, highlights, benchmark tests, NOS and DBMS software)(overview of four evaluations of network operating systems)(individual evaluation records searchable under "Network Operating Systems Serving Up Apps") (Software Review)(Evaluation)**

Oct 24 , 1995  
**Word Count:** 4916 **Line Count:** 00402

**Special Features:** illustration; photograph; table; chart; graph  
**Company Names:** Microsoft Corp.--Products  
**Descriptors:** Network operating systems--Evaluation  
**SIC Codes:** 7372 Prepackaged software  
**Ticker Symbols:** MSFT  
**Trade Names:** Microsoft Windows NT Server 3.5 (Network operating system)--Evaluation  
**File Segment:** CD File 275

21/8/56 (Item 2 from file: 47)  
Gale Group Magazine DB(TM)  
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04276942 **Supplier Number:** 17162448 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
**The right cut.(splttng applications)(Client/Server Deployment)**

June 26 , 1995  
**Word Count:** 1347 **Line Count:** 00109  
**Descriptors:** Client/server architecture--Programming; Programming (Computers)--Technique  
**File Segment:** CD File 275

>>>W: "FREE" is not a valid format name in file(s): 347-349

21/8/54 (Item 1 from file: 635)  
Business Dateline(R)  
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0686369 96-43616  
**IQ Software announces the availability of IQ/Objects and IQ/SmartServer for Sybase IQ**  
  
**Publication Date:** 960326

**Word Count:** 573

**Dateline:** Atlanta, GA, US, South Atlantic

**Company Names:** IQ Software Corp, Atlanta, GA, US, SIC:7372,

**Classification Codes:** 8302 (Software and computer services); 7500 (Product planning & development)

**Descriptors:** Software industry; Product introduction

21/8/55 (Item 1 from file: 47)

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04346728 **Supplier Number:** 17558129 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Network operating systems: serving up apps. (includes related articles on Editors' Choice, highlights, benchmark tests, NOS and DBMS software)(overview of four evaluations of network operating systems)(individual evaluation records searchable under "Network Operating Systems Serving Up Apps") (Software Review)(Evaluation)**

Oct 24 , 1995

**Word Count:** 4916 **Line Count:** 00402

**Special Features:** illustration; photograph; table; chart; graph

**Company Names:** Microsoft Corp.--Products

**Descriptors:** Network operating systems--Evaluation

**SIC Codes:** 7372 Prepackaged software

**Ticker Symbols:** MSFT

**Trade Names:** Microsoft Windows NT Server 3.5 (Network operating system)--Evaluation

**File Segment:** CD File 275

21/8/56 (Item 2 from file: 47)

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04276942 **Supplier Number:** 17162448 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**The right cut.(splitting applications)(Client/Server Deployment)**

June 26 , 1995

**Word Count:** 1347 **Line Count:** 00109

**Descriptors:** Client/server architecture--Programming; Programming (Computers)--Technique

**File Segment:** CD File 275

>>>W: "FREE" is not a valid format name in file(s): 347-349

21/8/54 (Item 1 from file: 635)

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0686369 96-43616

**IQ Software announces the availability of IQ/Objects and IQ/SmartServer for Sybase IQ**

**Publication Date:** 960326

**Word Count:** 573

**Dateline:** Atlanta, GA, US, South Atlantic

**Company Names:** IQ Software Corp, Atlanta, GA, US, SIC:7372,

**Classification Codes:** 8302 (Software and computer services); 7500 (Product planning & development)

**Descriptors:** Software industry; Product introduction

21/8/55 (Item 1 from file: 47)

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**Word Count:** 1347    **Line Count:** 00109  
**Descriptors:** Client/server architecture--Programming; Programming (Computers)--Technique  
**File Segment:** CD File 275

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Set	Items	Description
S1	8	S AU=(RIPPINGALE, J? OR RIPPINGALE J? OR ((JAN OR JANICE) (2N)RIPPINGALE))
S2	2	S AU=(POTTISH, S? OR POTTIS S? OR ((SUE OR SUSAN) (2N)POTTISH))
S3	100051618	S PD<20020627
S4	6	S S3 AND (S1 OR S2)
S5	6	RD (unique items)
S6	239338	S (TRANSACTION(W) PROCESS???)
S7	432902	S CLIENT(W) SERVER
S8	128	S CLIENT-SERVER
S9	3810	S (HEAVY OR FAT) (W) CLIENT
S10	3407	S (HEAVY OR FAT) (2N) SERVER? ?
S11	8366	S (HEAVY OR FAT) (2N) CLIENT? ?
S12	0	S CLIENT-IN-CHARGE
S13	2762	S (S7 OR S8) AND (S10 OR S11)
S14	241015	S TRANSACTION(N) PROCESS???
S15	354	S S13 AND S14
S16	0	S BATCH\$\$\$

S17 655132 S BATCH???

S18 1512741 S AGGREGAT???

S19 1587922 S ACCUMULAT???

S20 280938 S (REDUC??? OR MINIMIZ??? OR MINIMAL) (5N) (WORKLOAD OR TRAFFIC OR LOAD???)

S21 56 S S15 AND S20

S22 49 RD (unique items)

? s s22 and (s17 or s18 or s19)

49 S22

655132 S17

1512741 S18

1587922 S19

S23 29 S S22 AND (S17 OR S18 OR S19)

? t s23/free/all

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23/8/1 (Item 1 from file: 15)

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02927967 860346231

**\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***

**An Analysis of the Effects of Continuous Monitoring Controls on e-Commerce System Performance**

**Word Count: 7683 Length: 19 Pages**

Fall 2004

**Descriptors:** Information systems; Studies; Electronic commerce; Online transaction processing; Systems management

**Classification Codes:** 9130 (CN=Experimental/Theoretical); 5220 (CN=Information technology management)

**Print Media ID:** 54038

23/8/2 (Item 1 from file: 275)

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01517432 **Supplier Number: 12227070 (Use Format 7 Or 9 For FULL TEXT )**

**The goal: a real network. (how the testing methodology for the servers was created; includes related article on Structured Query Language Statements) (What's the Right Size?)**

June-July , 1992

**Word Count: 2878 Line Count: 00208**



**Special Features:** illustration; chart

**Descriptors:** Testing; DBMS; Methods; Validation; Superserver; Minicomputer; File Server; Design; Performance Measurement

**SIC Codes:** 3571 Electronic computers; 7372 Prepackaged software

**Trade Names:** Oracle (Database application development software)--Usage

**File Segment:** CD File 275

23/8/3 (Item 1 from file: 16)

Gale Group PROMT(R)

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04875733 **Supplier Number:** 47172243 (USE FORMAT 7 FOR FULLTEXT)

**Building The Internetwork: The basic components are the same, but the options are many. Here's how to hit the bull's-eye with your internetworking solution.**

March 1 , 1997

**Word Count:** 3415

**Publisher Name:** CMP Publications, Inc.

**Event Names:** \*260 (General services )

**Geographic Names:** \*1USA (United States )

**Product Names:** \*7372612 (Network Configuration Management Software)

**Industry Names:** BUSN (Any type of business); CMPT (Computers and Office Automation )

**NAICS Codes:** 51121 (Software Publishers )

23/8/4 (Item 1 from file: 148)

Gale Group Trade & Industry DB

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10046785 **Supplier Number:** 20347300 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Magic works, and costs.(Magic Software Enterprises Magic 8.0) (Software Review)(Evaluation)**

Feb 23 , 1998

**Word Count:** 609 **Line Count:** 00055

**Company Names:** Magic Software Enterprises--Products

**Industry Codes/Names:** BUSN Any type of business; CMPT Computers and Office Automation

**Descriptors:** Data base management systems--Evaluation

**Product/Industry Names:** 7372421 (DBMS)

**Product/Industry Names:** 7372 Prepackaged software

**Trade Names:** Magic Software Enterprises Magic 8.0 (DBMS)--Evaluation

**File Segment:** CD File 275

23/8/5 (Item 2 from file: 148)

Gale Group Trade & Industry DB

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09363300 **Supplier Number:** 19219116 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Building the internetwork. (includes related articles on intranet security and Gigabit Ethernet)(VAR Strategy**

**Guide: Internetworking) (Industry Trend or Event)**

March 1 , 1997

**Word Count:** 3543 **Line Count:** 00308

**Special Features:** illustration; table; graph

**Industry Codes/Names:** CMPT Computers and Office Automation; BUSN Any type of business

**Descriptors:** Computer networks--Planning; Value-added resellers--Planning

**Product/Industry Names:** 1623210 (Communications Construction); 3662100 (Communications Equipment ex Broadcast)

**Product/Industry Names:** 1620 Heavy Construction, Except Highway; 3660 Communications Equipment

**File Segment:** CD File 275

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? t s23/k/3

23/K/3 (Item 1 from file: 16)

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...to accommodate such applications.

A wide range of applications are specific to given industries: online **transaction processing** (OLTP) for financial services firms, CAD/CAM for engineering companies, statistical modeling for insurance companies...

...data resided on the central host, with desktop devices providing nothing more than display capability.

**Client-Server**

Today's networks are designed to distribute intelligence across the network, using CPUs that offer a previously inconceivable MIPS-to-dollar

ratio. This **client-server** architecture allows users to run powerful desktop applications locally, while data and more CPU-intensive processes run on larger, shared machines.

Document imaging is a particularly good example of how **client-server** architecture can leverage the best of both platforms. In such applications, a **heavy-duty server** shoulders the processing-intensive tasks of image retrieval and indexing, while the desktop supports presentation functions such as scrolling, magnification and data indexing.

**Client-server** architecture has also led to the use of special function boxes, which can be shared...

...some cases, data and application/business logic run on two different platforms. For example, a **transaction processing** application

may use data residing on a mainframe host, while the data gets "crunched" on...

...providing access to the application running on a Windows desktop. This type of "three-tiered" **client-server** architecture is particularly appropriate for situations in which large volumes of legacy data make it...

...cost-effectiveness and flexibility of a midrange platform are too compelling to decline.

While the **client-server** model is far from obsolete, its limitations have become evident over time. As different types...

...of PC on the desktop becomes irrelevant. This is a godsend for companies that have **accumulated** Macs and Unix workstations, and Intel-based machines running Windows and OS/2. The ability...percent goes over the network backbone-invalid (see "Securing the Intranet," page 11).

Of course, **client-server** and intranet architectures do not present an either/or choice. Most companies find that both...check on the status of the network and find their own online help facilities, thus **reducing** the **load** on help desk staffers. A continuing reassessment of user needs and satisfaction levels is also...

? ts23/k/4

23/K/4 (Item 1 from file: 148)

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...6244

www.magic.sw.com

Overall Grade: B+

Pros: Well-suited for developing high-volume **transaction processing** systems.

Cons: Tough for novices to learn. Costly

I tend to resist one-size-fits...

...Control manages dynamic partitioning, a requirement for enterprise-class application development environments. It results in **reduced** network **traffic**, improved availability and enhanced application scalability. A non-CORBA-compliant Object Request Broker enhances **load** balancing and **reduces** network **traffic**. It handles online transactions among multiple clients and servers, and maintains application integrity for online and **batch** applications in asynchronous and synchronous modes. The product's underlying technology is complex, but tasks...

...all the same logic, Magic allows you to develop hybrid applications that run simultaneously on **fat** and thin **clients**. One especially well-implemented feature, a link/join from multiple databases, enables you to create...

...secure on the server.

A new Dispatch Monitor (application monitor) provides an integrated view of **client/server** topologies throughout the enterprise.

?

Logon

\*\*\* It is now 3/27/07 1:15:14 PM \*\*\*

## Welcome to DialogLink - Version 5 Revolutionize the Way You Work!

### New on Dialog

#### Enhanced Derwent World Patents Index Now Available

The enhanced *Derwent World Patents Index*<sup>®</sup> (*DWPI*<sup>SM</sup>) (Files 350,351,352) is now available on Dialog. The improvements implemented in *DWPI* on Dialog further extend the database's rich content set and enhances overall functionality of the database.

In addition to distilled expert analysis reflected in *DWPI* expanded titles and abstracts, other enhancements include original patent filing details, multiple patent images, easy cut-and-paste patent family data, and much more.

The new templates include new features that will help you manage and distribute your *DWPI* search results in an attractive format.

Learn about all of the new *DWPI* enhancements and report templates at <http://www.dialog.com/dwpi>.

#### DialogLink 5 Release Notes

New features available in the latest release of DialogLink 5 (November 2005)

- Ability to resize images for easier incorporation into DialogLink Reports
- New settings allow users to be prompted to save Dialog search sessions in the format of their choice (Microsoft Word, RTF, PDF, HTML, or TEXT)
- Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database
- Support for connections to STN Germany and STN Japan services

Show Preferences for details

? Help Off Line

\* \* \*

Connecting to Rob Pond - Dialog - 264751

Connected to Dialog via SMS00315

? B 15, 9, 610, 810, 275, 476, 624, 621, 636, 613, 813, 16, 160, 634, 148, 20, 35, 583, 65, 2, 474, 475, 99, 256, 348, 349, 347, 635, 570, PAPERSMJ, PAPERSEU, 47

[File 15] **ABI/Inform(R)** 1971-2007/Mar 26

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[File 9] **Business & Industry(R)** Jul/1994-2007/Mar 26

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[File 610] **Business Wire** 1999-2007/Mar 27

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[File 810] **Business Wire** 1986-1999/Feb 28

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[File 275] **Gale Group Computer DB(TM)** 1983-2007/Mar 26

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[File 476] **Financial Times Fulltext** 1982-2007/Mar 27

(c) 2007 Financial Times Ltd. All rights reserved.

[File 624] **McGraw-Hill Publications** 1985-2007/Mar 26

(c) 2007 McGraw-Hill Co. Inc. All rights reserved.

*\*File 624: Homeland Security & Defense and 9 Platt energy journals added Please see HELP NEWS624 for more*

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Mar 26

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[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/Mar 26

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[File 613] **PR Newswire** 1999-2007/Mar 27

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[File 160] **Gale Group PROMT(R)** 1972-1989

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[File 634] **San Jose Mercury** Jun 1985-2007/Mar 23

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[File 148] **Gale Group Trade & Industry DB** 1976-2007/Mar 16

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[File 20] **Dialog Global Reporter** 1997-2007/Mar 27

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[File 65] **Inside Conferences** 1993-2007/Mar 26  
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[File 2] **INSPEC** 1898-2007/Mar W3  
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[File 474] **New York Times Abs** 1969-2007/Mar 27  
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[File 475] **Wall Street Journal Abs** 1973-2007/Mar 27  
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[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2007/Feb  
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[File 256] **TecInfoSource** 82-2007/Oct  
(c) 2007 Info.Sources Inc. All rights reserved.

[File 348] **EUROPEAN PATENTS** 1978-2007/ 200708  
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*\*File 348: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.*

[File 349] **PCT FULLTEXT** 1979-2007/UB=20070315UT=20070308  
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*\*File 349: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.*

[File 347] **JAPIO** Dec 1976-2006/Nov(Updated 070228)  
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[File 635] **Business Dateline(R)** 1985-2007/Mar 24  
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[File 570] **Gale Group MARS(R)** 1984-2007/Mar 26  
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[File 471] **New York Times Fulltext** 1980-2007/Mar 27  
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[File 492] **Arizona Repub/Phoenix Gaz** 19862002/Jan 06  
(c) 2002 Phoenix Newspapers. All rights reserved.  
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[File 494] **St LouisPost-Dispatch** 1988-2007/Mar 24  
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[File 631] **Boston Globe** 1980-2007/Mar 22

(c) 2007 Boston Globe. All rights reserved.

[File 633] **Phil.Inquirer** 1983-2007/Mar 22

(c) 2007 Philadelphia Newspapers Inc. All rights reserved.

[File 638] **Newsday/New York Newsday** 1987-2007/Mar 27

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[File 640] **San Francisco Chronicle** 1988-2007/Mar 25

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[File 641] **Rocky Mountain News** Jun 1989-2007/Mar 26

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[File 702] **Miami Herald** 1983-2007/Mar 18

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[File 703] **USA Today** 1989-2007/Mar 26

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[File 704] **(Portland)The Oregonian** 1989-2007/Mar 25

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[File 713] **Atlanta J/Const.** 1989-2007/Mar 25

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[File 714] **(Baltimore) The Sun** 1990-2007/Mar 23

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[File 715] **Christian Sci.Mon.** 1989-2007/Mar 26

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[File 725] **(Cleveland)Plain Dealer** Aug 1991-2007/Mar 26

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[File 735] **St. Petersburg Times** 1989- 2007/Mar 25

(c) 2007 St. Petersburg Times. All rights reserved.

[File 477] **Irish Times** 1999-2007/Mar 26

(c) 2007 Irish Times. All rights reserved.

[File 710] **Times/Sun.Times(London)** Jun 1988-2007/Mar 27

(c) 2007 Times Newspapers. All rights reserved.

[File 711] **Independent(London)** Sep 1988-2006/Dec 12

(c) 2006 Newspaper Publ. PLC. All rights reserved.

*\*File 711: Use File 757 for full current day's news of the Independent, as as well as full coverage of many additional European news sources.*

[File 756] **Daily/Sunday Telegraph** 2000-2007/Mar 27

(c) 2007 Telegraph Group. All rights reserved.

[File 757] **Mirror Publications/Independent Newspapers** 2000-2007/Mar 27

(c) 2007. All rights reserved.

[File 47] Gale Group Magazine DB(TM) 1959-2007/Mar 16  
(c) 2007 The Gale group. All rights reserved.

? S PD<20030627 AND PD>19970627

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

Processing

>>>W: One or more prefixes are unsupported  
or undefined in one or more files.

S1 59501753 S PD<20030627 AND PD>19970627

? s client-in-charge or (client(2w)charge)

Processing

0 CLIENT-IN-CHARGE

3628784 CLIENT

6659645 CHARGE

1137 CLIENT(2W)CHARGE

S2 1137 S CLIENT-IN-CHARGE OR (CLIENT(2W)CHARGE)

? S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))

Processing

	1	SERVER-CENTRIC
	0	SERVER-HEAVY
2380445		SERVER
	0	CENTRIC HEAVY
1064586		FAT
	940	SERVER(2N) (CENTRIC HEAVY OR FAT)
S3	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N) (CENTRIC HEAVY OR FAT))

? d s

Set	Items	Description
S1	59501753	S PD<20030627 AND PD>19970627
S2	1137	S CLIENT-IN-CHARGE OR (CLIENT(2W)CHARGE)
S3	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N) (CENTRIC HEAVY OR FAT))

? S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N) (thin or CENTRIC OR HEAVY OR FAT))

Processing

	0	CLIENT-CENTRIC
	0	CLIENT-HEAVY
3628784		CLIENT
2330902		THIN
348585		CENTRIC
4165026		HEAVY
1064586		FAT
	77606	CLIENT(3N) (((THIN OR CENTRIC) OR HEAVY) OR FAT)
S4	77606	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N) (THIN OR CENTRIC OR HEAVY OR FAT))

? d s

Set	Items	Description
S1	59501753	S PD<20030627 AND PD>19970627
S2	1137	S CLIENT-IN-CHARGE OR (CLIENT(2W)CHARGE)
S3	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N) (CENTRIC HEAVY OR FAT))
S4	77606	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N) (THIN OR CENTRIC OR HEAVY OR FAT))

? s s1 and s2 and (s3 or s4)

59501753 S1

1137 S2

941 S3

77606 S4

S5 8 S S1 AND S2 AND (S3 OR S4)

? t s5/k/all

5/K/1 (Item 1 from file: 15)

ABI/Inform(R)

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### Microsoft mulls thin-client server pricing

#### Abstract:

...up to a set number of simultaneous users. Microsoft is also evaluating some kind of **client-side charge** that would be higher for terminals than for PCs.

#### Text:

...model for WBT Server, according to John Frederiksen, Microsoft's group

program manager for the **thin-client** offering. Citrix uses concurrent licensing with which customers buy the server software that can be...

...number of simultaneous users. Microsoft favors perseat licensing.

Microsoft also is evaluating some kind of **client-side charge** that would be higher for terminals than for PCs, Frederiksen said. The rationale is that...

...final product is supposed to ship by June 1.

(Table Omitted)

Captioned as: Microsoft calculates **thin-client** price

5/K/2 (Item 1 from file: 275)

Gale Group Computer DB(TM)

(c) 2007 The Gale Group. All rights reserved.

**Text:**

...Workstation on every desktop, Microsoft effectively added a cost of \$130 - \$260 to each Windows **thin client**, a **charge** many users regarded as a tax. Now Microsoft says it will offer a new Terminal...

**19990119**

5/K/3 (Item 1 from file: 636)

Gale Group Newsletter DB(TM)

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**(USE FORMAT 7 FOR FULLTEXT)**

**Text:**

...Workstation on every desktop, Microsoft effectively added a cost of \$130 - \$260 to each Windows **thin client**, a **charge** many users regarded as a tax. Now Microsoft says it will offer a new Terminal...

**19990119**

5/K/4 (Item 1 from file: 16)

Gale Group PROMT(R)

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**(USE FORMAT 7 FOR FULLTEXT)**

**Text:**

...Workstation on every desktop, Microsoft effectively added a cost of \$130 - \$260 to each Windows **thin client**, a **charge** many users regarded as a tax. Now Microsoft says it will offer a new Terminal...

**19990119**

5/K/5 (Item 1 from file: 148)

Gale Group Trade & Industry DB

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**Text:**



...Workstation on every desktop, Microsoft effectively added a cost of \$130 - \$260 to each Windows **thin client**, a **charge** many users regarded as a tax. Now Microsoft says it will offer a new Terminal...

19990119

5/K/6 (Item 1 from file: 348)  
EUROPEAN PATENTS  
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Country	Number	Kind	Date		
Type		Pub. Date		Kind	Text
Available Text		Language		Update	Word Count
Total Word Count (Document A)					
Total Word Count (Document B)					
Total Word Count (All Documents)					

**Specification:** ...than attempt to define a complicated search protocol which may not be feasible for a **thin client** to implement, the discovery service may offload the actual search to XML-based search facilities...do not desire to perform checking of messages against a service's XML schema. The **client** may be too **thin** to perform the checking or may rely on the service gate to perform the checking...may indicate clients that are not to be charged at all.

In some embodiments, a **client** may be too **thin** to support a full gate, or a client may not include software to directly participate...

**Claims:** ...de service.

16. Procède selon l'une quelconque des revendications précédentes, dans lequel le dispositif **client** prend en **charge** une connexion de transport en plus de ladite liaison de communication directe point-a-point...

5/K/7 (Item 1 from file: 349)  
PCT FULLTEXT  
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	Country	Number	Kind	Date
Patent				19

**French Abstract:**

...l'IU étant disponibles localement au niveau du dispositif client. De cette manière, le dispositif **client** ne se **charge** que du rendu réel de l'IU. Les objets de données de source sont téléchargés... ...du serveur d'IU vers le dispositif

client quand cela est nécessaire et le dispositif **client charge** l'IU au moyen des objets de données de source téléchargées. Le dispositif client utilise...

#### Detailed Description:

...have taken the classic approach of providing the device with more functionality, thus creating a **fat client** device. For example, some providers add software and features to their platforms and applications to... ..device.

Three variables that determine practicality to the end user are portability, affordability, and value. **Fat client** devices, while benefiting from additional functionality, usually suffer a decrease in portability, affordability, product practicality... ..mainstream adoption. In addition, a closer look at the functionality actually being delivered by such **fat client** devices reveals further limitations. For example, although such devices can usually access simple POP3 and... ..for their wireless HCDs and will have no access to corporate server-based PIM data.

**Thin client** architectures can be segmented into three typical categories.

5 web interfaces, virtual machines, and thin...many of the same limitations as a virtual machine.

Unlike most of the so-called "**thin client**" technologies discussed herein, ActiveX leverages the OS and platform directly, making it a powerful solution... ..OS and processor configurations abound.

Furthermore, ActiveX is in some ways a return to the **fat client** concept of installing client-side software for local processing.

With the increase in network bandwidth... ..IS professionals scramble to lower total cost of ownership. All of these solutions employ a **thin client** that can be ported to multiple platforms, and provide the user with a full graphical a relatively **thin client** for reduced **client**-side resource demands; an interactive end user experience with persistent state; client platform independence; leveraging...any other application. The result is an end user experience similar to that of a **fat client**, with much of the value and computing power associated with terminal server solutions.

Exemple Email...clients need not be specially configured to support each application. For example, in a typical **fat client** environment, opening an email with an attached word processor document requires a client side email...the appropriate server-based application.

Ultimately, the distributed UI system offers the flexibility of a **fat client** experience without the resource demands of such a system. Client devices can be smaller, have less processing power, less memory, and longer battery life while having more functionality than current **fat client** devices.

#### General System Architecture

FIG. 7 is a schematic representation of the server and client...of the client platform OS. Leveraging native controls improves performance and provides a more interactive, **fat client** feel to the remote application. In addition, such leveraging lowers the overall network bandwidth requirements...

PCT FULLTEXT

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	Country	Number	Kind	Date
Patent				19

**French Abstract:**

...structure de donnees de cet objet construit. L'objet construit initialise est ensuite transmis au **client** et **charge**. Un ou plusieurs procedes sont appeles au niveau du client de facon a generer le...

**Detailed Description:**

...system or programming or processing environment, including embedded devices (e.g., web phones, etc.) and "**thin**" **client** processing environments (e.g., network computers (NC's), etc.). An example of a general computer...

? t s5/7/6

5/7/6 (Item 1 from file: 348)

EUROPEAN PATENTS

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01379007

**METHOD AND APPARATUS FOR PROXIMITY DISCOVERY OF SERVICES**

**VERFAHREN UND VORRICHTUNG ZUR ERMITTLUNG VON BENACHBARTEN DIENSTEN**

**PROCEDE ET APPAREIL POUR DECOUVRIR LA PROXIMITE DE SERVICES**

**Patent Assignee:**

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(Proprietor designated states: all)

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	Country	Number	Kind	Date	
Patent	EP	1285354	A2	20030226	(Basic)
	EP	1285354	B1	20040303	
	WO	2001086486		20011115	
Application	EP	2001937281		20010509	
	WO	2001US15099		20010509	
Priorities	US	202975	P	20000509	
	US	208011	P	20000526	
	US	209430	P	20000602	
	US	209140	P	20000602	
	US	209525	P	20000605	
	US	656588		20000907	

**Designated States:**

AT; BE; CH; CY; DE; DK; ES; FI; FR; GB;  
GR; IE; IT; LI; LU; MC; NL; PT; SE; TR;

**Extended Designated States:**

AL; LT; LV; MK; RO; SI;

**International Patent Class (V7): G06F-017/00CITED PATENTS: (EP B)**

US 5724588 A;

**NOTE:** No A-document published by EPO

Type	Pub. Date	Kind	Text
Application:	20020109	A2	International application. (Art. 158(1))
Application:	20020109	A2	International application entering European phase
Application:	20030226	A2	Published application without search report
Examination:	20030226	A2	Date of request for examination: 20021206
Assignee:	20030423	A2	Transfer of rights to new applicant: Sun Microsystems, Inc. (2616592) 4150 Network Circle Santa Clara, California 95054 US

Change:	20030507	A2	Inventor information changed: 20030314
Change:	20031015	A2	Title of invention (German) changed: 20030827
Grant:	20040303	B1	Granted patent
Lapse:	20040929	B1	Date of lapse of European Patent in a contracting state (Country, date): FI 20040303, SE 20040603,
Lapse:	20041006	B1	Date of lapse of European Patent in a contracting state (Country, date): FI 20040303, GR 20040603, SE 20040603,
Lapse:	20040929	B1	Date of lapse of European Patent in a contracting state (Country, date): FI 20040303, SE 20040603,
Lapse:	20041006	B1	Date of lapse of European Patent in a contracting state (Country, date): FI 20040303, GR 20040603, SE 20040603,
Lapse:	20041020	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20040303, FI 20040303, GR 20040603, SE 20040603,
Lapse:	20041027	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20040303, CH 20040303, LI 20040303, FI 20040303, GR 20040603, SE 20040603,
Lapse:	20041110	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20040303, CH 20040303, LI 20040303, ES 20040614, FI 20040303, GR 20040603, SE 20040603,
Lapse:	20050105	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20040303, BE 20040303, CH 20040303, LI 20040303, ES 20040614, FI 20040303, GR 20040603, SE 20040603,
Lapse:	20050202	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20040303, BE 20040303, CH 20040303, LI 20040303, ES 20040614, FI 20040303, GR 20040603, NL 20040303, SE 20040603,
Oppn None:	20050223	B1	No opposition filed: 20041206

Lapse:	20050316	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20040303, BE 20040303, CH 20040303, LI 20040303, ES 20040614, FI 20040303, GR 20040603, MC 20040531, NL 20040303, SE 20040603,
Lapse:	20050504	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20040303, BE 20040303, CH 20040303, LI 20040303, DK 20040603, ES 20040614, FI 20040303, GR 20040603, MC 20040531, NL 20040303, SE 20040603,
Lapse:	20050608	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20040303, BE 20040303, CH 20040303, LI 20040303, DK 20040603, ES 20040614, FI 20040303, GR 20040603, LU 20040509, MC 20040531, NL 20040303, SE 20040603,
Lapse:	20050615	B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20040303, BE 20040303, CH 20040303, LI 20040303, DK 20040603, ES 20040614, FI 20040303, GR 20040603, IE 20040510, LU 20040509, MC 20040531, NL

			20040303, SE 20040603,
Change:	20061220	B1	Title of invention (German) changed: 20061220
Change:	20061220	B1	Title of invention (English) changed: 20061220
Change:	20061220	B1	Title of invention (French) changed: 20061220

Publication: English

Procedural: English

Application: English

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200410	1593
CLAIMS B	(German)	200410	1477
CLAIMS B	(French)	200410	1803
SPEC B	(English)	200410	58024
Total Word Count (Document A) 0			
Total Word Count (Document B) 62897			
Total Word Count (All Documents) 62897			

**Claims:** EP 1285354 B1

1. A method for accessing a proximity service, comprising:

a client device (2150) forming (2190) a direct point-to-point communication link with a service device (2170);

the client device directly requesting (2192) to the service device a document that describes an interface to access a service provided by the service device;

the client device receiving (2194) said document directly from the service device, wherein said document comprises information describing how to access the service; wherein said requesting and said receiving are performed over said direct point-to-point communication link; and

the client device using the information from said document to access (2196) the service.

2. The method as recited in claim 1, wherein said requesting comprises the client sending an advertisement request message for the service to the service device over the direct point-to-point communication link, wherein the advertisement request message is in a data representation language.

3. The method as recited in claim 2, wherein the data representation language is eXtensible Markup Language (XML).

4. The method as recited in any preceding claim, wherein said document comprises a service advertisement (2178) for the service, wherein said service advertisement comprises a schema specifying an interface to at least a portion the service.

5. The method as recited in claim 4, wherein said schema is an eXtensible Markup Language (XML) schema defining XML messages for a client on the client device to send to the service and the service to send to the client in order for the client to access capabilities of the service.

6. The method as recited in claim 5, wherein the client device using the information from said document comprises the client sending one or more of said XML messages to the service over said direct point-to-point communication link.



7. The method as recited in any preceding claim, wherein said receiving comprises receiving said document in an advertisement request response message sent from the service over said direct point-to-point communication link, wherein the advertisement request response message is in a data representation language.
8. The method as recited in claim 7, wherein the data representation language is eXtensible Markup Language (XML).
9. The method as recited in any preceding claim, wherein the client device is in physical proximity of the service device.
10. The method as recited in any of claims 1 to 8, wherein said direct point-to-point communication link is an IrDA infrared link.
11. The method as recited in any of claims 1 to 8, wherein the client device is in wireless proximity of the service device.
12. The method as recited in any preceding claim, wherein said requesting comprises including a client security credential in a request to said service device for said document, and wherein said service device authenticates said client security credential before sending said document to the client device.
13. The method as recited in any preceding claim, wherein said client device using the information from said document to access the service comprises:
  - a client on the client device requesting a security credential from an authentication service specified in said document;
  - the client receiving said security credential; and
  - the client including said security credential with a subsequent request to the service to access a capability of the service.
14. The method as recited in claim 13, further comprising the service verifying the client's security credential before allowing access to the capability.
15. The method as recited in claim 14, wherein said authentication service is provided by the service device.
16. The method as recited in any preceding claim, wherein the client device supports a transport connection in addition to said direct point-to-point communication link, wherein said client device using the information from said document to access the service comprises the client device making said document available to other devices over said transport connection, wherein the client device provides a bridge from said transport connection to said direct point-to-point communication link so that the other devices may access the service.
17. The method as recited in claim 16, wherein said transport connection comprises a network connection.
18. The method as recited in claim 17, wherein said network connection comprises an Internet connection.
19. A system, comprising:
  - a service device (2170) configured to support a direct point-to-point communication link and provide a service;
  - a client device (2150) configured to form said direct point-to-point communication link with the service device; wherein the client device is further configured to directly request from the service device a document that describes an interface to access the service;

wherein the service device is further configured to provide said document directly to the client device over said direct point-to-point communication link; and

wherein the client device is further configured to use the information from said document to access the service.

20. The system as recited in claim 19, wherein the client device is configured to request said document by sending an advertisement request message for the service to the service device over the direct point-to-point communication link, wherein the advertisement request message is in a data representation language.

21. The system as recited in claim 20, wherein the data representation language is extensible Markup Language (XML).

22. The system as recited in any of claims 19 to 21, wherein said document comprises a service advertisement (2178) for the service, wherein said service advertisement comprises a schema specifying an interface to at least a portion the service.

23. The system as recited in claim 22, wherein said schema is an eXtensible Markup Language (XML) schema defining XML messages for a client on the client device to send to the service and the service to send to the client in order for the client to access capabilities of the service.

24. The system as recited in claim 23, wherein the client device is configured to use the information from said document to send one or more of said XML messages to the service over said direct point-to-point communication link.

25. The system as recited in any of claims 19 to 24, wherein the client device is configured to receive said document in an advertisement request response message sent from the service over said direct point-to-point communication link, wherein the advertisement request response message is in a data representation language.

26. The system as recited in claim 25, wherein the data representation language is eXtensible Markup Language (XML).

27. The system as recited in any of claims 19 to 26, wherein the client device is in physical proximity of the service device.

28. The system as recited in any of claims 19 to 26, wherein said direct point-to-point communication link is an IrDA infrared link.

29. The system as recited in any of claims 19 to 26, wherein the client device is in wireless proximity of the service device.

30. The system as recited in any of claims 19 to 29, wherein the client device is configured to include a client security credential in a request to said service device for said document, and wherein said service device is configured to authenticate said client security credential before sending said document to the client device.

31. The system as recited in any of claims 19 to 30, wherein said client device is configured to:

request a security credential from an authentication service specified in said document;

receive said security credential; and

include said security credential with a subsequent request to the service to access a capability of the service.

32. The system as recited in claim 31, wherein the service is configured to verify the client's security credential before allowing access to the capability.

33. The system as recited in claim 32, wherein said authentication service is provided by the service device.

34. The system as recited in claim 19, wherein the client device is configured to support a transport connection in addition to said direct point-to-point communication link, wherein said client device is further configured to make said document available to other devices over said transport connection and provide a bridge from said transport connection to said direct point-to-point communication link so that the other devices may access the service.

35. The system as recited in claim 34, wherein said transport connection comprises a network connection.

36. The system as recited in claim 35, wherein said network connection comprises an Internet connection.

37. A client device (2150), comprising:

a port (2156) configured to form a direct point-to-point communication link with a service device;

an interface (2154) configured to directly request over the point-to-point communication link a document that describes an interface to access a service; wherein the interface is further configured to receive said document directly from the service over the point-to-point communication link; and

wherein the interface is further configured to use the information from said document to access the service.

38. A service device (2170), comprising:

a port (2172) configured to form a direct point-to-point communication link with a client device;

an interface (2174) configured to receive over the point-to-point communication link a request from a client for a document (2178) that describes an interface to access the service (2176), wherein the interface is further configured to provide said document directly to the client over the point-to-point communication link; and

a service unit configured to be accessed by the client according to information specified in said document.

39. A carrier medium comprising program instructions, wherein the program instructions are computer-executable on a client device (2150) to implement:

forming a direct point-to-point communication link with a service device (2170);

directly requesting to the service device a document that describes an interface to access a service provided by the service device;

receiving said document directly from the service device, wherein said document comprises information describing how to access the service; wherein said requesting and said receiving are performed over said direct point-to-point communication link; and

using the information from said document to access the service.

40. A computer program comprising computer-executable instructions for implementing the method of any of claims 1 to 18.

**Claims:** EP 1285354 B1

1. Verfahren für das Zugreifen auf benachbarte Dienste, das aufweist:

eine Clientvorrichtung (2150), die eine direkte Punkt-zu-Punkt-Kommunikationsverbindung mit einer Serviceeinrichtung (2170) bildet (2190), wobei die Clienteinrichtung direkt bei der Serviceeinrichtung ein Dokument abfragt (2190), das eine Schnittstelle für den Zugriff auf einen Dienst, der von der Serviceeinrichtung bereitgestellt wird, beschreibt,

wobei die Clientvorrichtung das Dokument direkt von der Serviceeinrichtung empfängt (2194), wobei das Dokument Information aufweist, die beschreibt, wie auf den Service zuzugreifen ist,

wobei das Abfragen und das Empfangen über die direkte Punkt-zu-Punkt-Kommunikationsverbindung durchgeführt wird, und

wobei die Clientvorrichtung die Information von dem Dokument verwendet, um auf den Service bzw. den Dienst zuzugreifen (2196).

2. Verfahren nach Anspruch 1, wobei das Abfragen aufweist, dass der Client eine Abfrageankündigungsnachricht für den Dienst zu der Dienst Einrichtung über die direkte Punkt-zu-Punkt-Kommunikationsverbindung sendet, wobei die Abfrageankündigungsnachricht in einer Datendarstellungssprache ist.
3. Verfahren nach Anspruch 2, wobei die Datendarstellungsnachricht die eXtensible-Markup-Sprache (XML) ist.
4. Verfahren nach einem der vorherigen Ansprüche, wobei das Dokument eine Dienstankündigung (2178) für den Dienst aufweist, wobei die Dienstankündigung ein Schema aufweist, das eine Schnittstelle zu zumindest einem Teil des Dienstes spezifiziert.
5. Verfahren nach Anspruch 4, wobei das Schema ein eXtensible-Markup-Language (XML)-Schema ist, das XML-Nachrichten definiert, damit ein Client auf der Clientvorrichtung diese zu dem Dienst und der Dienst diese zu dem Client sendet, um für den Client Zugriff auf die Fähigkeiten des Dienstes zu haben.
6. Verfahren nach Anspruch 5, in dem die Clienteinrichtung, die die Informationen von dem Dokument verwendet, den Client aufweist, der ein oder mehrere der XML-Nachrichten zu dem Dienst über die direkte Punkt-zu-Punkt-Kommunikationsverbindung sendet.
7. Verfahren nach einem der vorherigen Ansprüche, wobei das Empfangen des Dokumentes in einer Anfrageankündigungsantwortnachricht aufweist, die von dem Dienst über die direkte Punkt-zu-Punkt-Kommunikationsverbindung gesendet wird, wobei die Anfrageankündigungsantwortnachricht in einer Datendarstellungssprache ist.
8. Verfahren nach Anspruch 7, wobei die Datendarstellungssprache die eXtensible-Markup-Language (XML) ist.
9. Verfahren nach einem der vorherigen Ansprüche, wobei die Clienteinrichtung in physischer Nähe zu der Dienst- bzw. Serviceeinrichtung ist.
10. Verfahren nach einem der Ansprüche 1 bis 8, wobei die direkte Punkt-zu-Punkt-Kommunikationsverbindung eine IrDA-Infrarotverbindung ist.
11. Verfahren nach einem der Ansprüche 1 bis 8, wobei die Clientvorrichtung in Funknähe der Serviceeinrichtung ist.
12. Verfahren nach einem der vorherigen Ansprüche, wobei das Abfragen das Einbeziehen eines Clientsicherheitsberechtigungs nachweises in einer Anfrage an die Serviceeinrichtung für dieses Dokument aufweist,



und wobei die Serviceeinrichtung den Clientsicherheitsberechtigungs-nachweis authentifiziert, bevor es das Dokument zu der Clienteinrichtung sendet.

13. Verfahren nach einem der vorherigen Ansprüche, wobei die Clienteinrichtung, die die Information von dem Dokument verwendet, um auf den Dienst zuzugreifen, aufweist:

einen Client auf der Clienteinrichtung, die einen Sicherheitsberechtigungs-nachweis von einem Authentifizierungsservice abfragt, der in dem Dokument spezifiziert ist, wobei der Client den Sicherheitsberechtigungs-nachweis empfängt, und

wobei der Client den Sicherheitsberechtigungs-nachweis in einer nachfolgenden Anfrage zu dem Dienst aufnimmt, um auf eine Fähigkeit des Dienstes zuzugreifen.

14. Verfahren nach Anspruch 13, das weiterhin den Dienst des Verifizierens des Sicherheitsberechtigungs-nachweises des Clients vor dem Erlauben des Zugriffs auf die Fähigkeit aufweist.

15. Verfahren nach Anspruch 14, wobei der Authentifizierungsdienst von der Serviceeinrichtung bereitgestellt wird.

16. Verfahren nach einem der vorherigen Ansprüche, wobei die Clienteinrichtung eine Transportverbindung zusätzlich zu der direkten Punkt-zu-Punkt-Kommunikationsverbindung unterstützt, wobei die Clienteinrichtung, die die Information von dem Dokument verwendet, um auf den Dienst zuzugreifen, die Clienteinrichtung aufweist, die das Dokument anderen Einrichtungen über die Transportverbindung verfügbar macht, wobei die Clienteinrichtung eine Brücke von der Transportverbindung zu der direkten Punkt-zu-Punkt-Kommunikationsverbindung bereitstellt, so das die anderen Einrichtungen auf den Dienst zugreifen können.

17. Verfahren nach Anspruch 16, wobei die Transportverbindung eine Netzwerkverbindung aufweist.

18. Verfahren nach Anspruch 17, wobei die Netzwerkverbindung eine Internetverbindung aufweist.

19. System, das aufweist:

eine Serviceeinrichtung (2170), die derart konfiguriert ist, das sie eine direkte Punkt-zu-Punkt-Kommunikationsverbindung unterstützt und einen Dienst bereitstellt,

eine Clienteinrichtung (2150), die derart konfiguriert ist, das sie die direkte Punkt-zu-Punkt-Kommunikationsverbindung mit der Serviceeinrichtung bildet, wobei die Clienteinrichtung weiterhin derart konfiguriert ist, das sie direkt von der Serviceeinrichtung ein Dokument anfordert, das eine Schnittstelle beschreibt, um auf den Dienst zuzugreifen,

wobei die Serviceeinrichtung weiterhin derart konfiguriert ist, das sie das Dokument direkt über die direkte Punkt-zu-Punkt-Kommunikationsverbindung der Clienteinrichtung zur Verfügung stellt, und

wobei die Clienteinrichtung weiterhin derart konfiguriert ist, das sie die Information von dem Dokument verwendet, um auf den Dienst zuzugreifen.

20. System nach Anspruch 19, wobei die Clientvorrichtung derart konfiguriert ist, das sie das Dokument durch Senden einer Abfrageankündigungsnachricht für den Dienst zu der Dienst Einrichtung über die direkte Punkt-zu-Punkt-Kommunikationsverbindung sendet,

wobei die Abfrageankündigungsnachricht in einer Datendarstellungssprache ist.

21. System nach Anspruch 20, wobei die Datendarstellungssprache die eXtensible-Markup-Language (XML) ist.

22. System nach einem der Ansprüche 19 bis 21, wobei das Dokument eine Dienstankündigung (2178) für den Dienst aufweist, wobei die Dienstankündigung ein Schema aufweist, das eine Schnittstelle zu zumindest einem Teil des Dienstes spezifiziert.

23. System nach Anspruch 22, wobei das Schema ein eXtensible-Markup-Language (XML)-Schema ist, das XML-Nachrichten definiert, damit ein Client auf der Clientvorrichtung diese zu dem Dienst und der Dienst diese zu dem Client sendet, um für den Client Zugriff auf die Fähigkeiten des Dienstes zu haben.

24. System nach Anspruch 23, wobei die Clienteinrichtung derart konfiguriert ist, dass sie die Information von dem Dokument verwendet, um ein oder mehrere der XML-Nachrichten zu dem Dienst über die direkte Punkt-zu-Punkt-Kommunikationsverbindung zu senden.

25. System nach einem der Ansprüche 19 bis 24, wobei die Clienteinrichtung derart konfiguriert ist, dass sie das Dokument in einer Abfrageankündigungsantwortnachricht empfängt, die von dem Dienst für die direkte Punkt-zu-Punkt-Kommunikationsverbindung gesendet wird, wobei die Abfrageankündigungsantwortnachricht in einer Datendarstellungssprache ist.

26. System nach Anspruch 25, wobei die Datendarstellungssprache die eXtensible-Markup-Language (XML) ist.

27. System nach einem der Ansprüche 19 bis 26, wobei die Clienteinrichtung in physischer Nähe zu der Serviceeinrichtung ist.

28. System nach einem der Ansprüche 19 bis 26, wobei die direkte Punkt-zu-Punkt-Kommunikationsverbindung eine IrDA-Infrarotverbindung ist.

29. System nach einem der Ansprüche 19 bis 26, wobei die Clienteinrichtung in Funknähe der Serviceeinrichtung ist.

30. System nach einem der Ansprüche 19 bis 29, wobei die Clienteinrichtung derart konfiguriert ist, dass sie ein Clientsicherheitsberechtigungs-nachweis in einer Anfrage zu der Serviceeinrichtung für dieses Dokument einbindet, und wobei die Serviceeinrichtung derart konfiguriert ist, dass sie den Clientsicherheitsberechtigungs-nachweis authentifiziert, bevor das Dokument zu der Clienteinrichtung gesendet wird.

31. System nach einem der Ansprüche 19 bis 30, wobei die Clienteinrichtung derart konfiguriert ist, um:

ein Sicherheitsberechtigungs-nachweis von einem Authentifizierungsdienst, der in dem Dokument spezifiziert wird, anzufordern,

den Sicherheitsberechtigungs-nachweis zu empfangen und

den Sicherheitsberechtigungs-nachweis in einer nachfolgenden Anfrage an den Dienst einzubinden, um auf eine Fähigkeit des Dienstes zuzugreifen.

32. System nach Anspruch 31, wobei der Dienst derart konfiguriert ist, dass er den Sicherheitsberechtigungs-nachweis verifiziert, bevor der Zugriff auf die Fähigkeit erlaubt wird.

33. System nach Anspruch 32, wobei der Authentifizierungsdienst von der Serviceeinrichtung bereitgestellt wird.

34. System nach Anspruch 19, wobei die Clienteinrichtung derart konfiguriert ist, dass sie eine Transportverbindung zusätzlich zu der direkten Punkt-zu-Punkt-Kommunikationsverbindung trägt bzw. unterstützt, wobei die Clienteinrichtung weiterhin derart konfiguriert ist, dass sie das Dokument anderen Einrichtungen über die



Transportverbindung verfügbar macht und eine Brücke von der Transportverbindung zu der direkten Punkt-zu-Punkt-Kommunikationsverbindung bereitstellt, so das die anderen Einrichtungen auf den Dienst zugreifen können.

35. System nach Anspruch 34, wobei die Transportverbindung eine Netzwerkverbindung aufweist.

36. System nach Anspruch 25, wobei die Netzwerkverbindung eine Internetverbindung aufweist.

37. Clienteinrichtung (2150), die aufweist:

einen Anschluss (2156), der derart konfiguriert ist, das er eine direkte Punkt-zu-Punkt-Kommunikationsverbindung mit einer Serviceeinrichtung bildet,

ein Interface (2154), das derart konfiguriert ist, das es direkt über die Punkt-zu-Punkt-Kommunikationsverbindung ein Dokument abfragt, das eine Schnittstelle zu dem Zugriff auf einen Dienst beschreibt, wobei die Schnittstelle weiterhin derart konfiguriert ist, das sie das Dokument direkt von dem Dienst über die Punkt-zu-Punkt-Kommunikationsverbindung empfängt und

wobei die Schnittstelle weiterhin derart konfiguriert ist, das sie die Information von dem Dokument verwendet, um auf den Dienst zuzugreifen.

38. Serviceeinrichtung (2170), die aufweist:

einen Anschluss (2172), der derart konfiguriert ist, das er eine direkte Punkt-zu-Punkt-Kommunikationsverbindung mit einer Clienteinrichtung bildet,

eine Schnittstelle (2174), die derart konfiguriert ist, das sie über die Punkt-zu-Punkt-Kommunikationsverbindung eine Anfrage von einem Client nach einem Dokument (2178) empfängt, das eine Schnittstelle beschreibt, um auf den Dienst (2176) zuzugreifen, wobei die Schnittstelle weiterhin derart konfiguriert ist, das sie das Dokument direkt dem Client über die Punkt-zu-Punkt-Kommunikationsverbindung bereitstellt und

eine Serviceeinheit, die derart konfiguriert ist, das auf sie von dem Client entsprechend einer Information, die in dem Dokument spezifiziert ist, zugegriffen werden kann.

39. Trägermedium, das Programmbefehle aufweist, wobei die Programmbefehle auf einer Clienteinrichtung (2150) computerausführbar sind, um zu implementieren:

das Bilden einer direkten Punkt-zu-Punkt-Kommunikationsverbindung mit einer Serviceeinrichtung (2170),

das direkte Abfragen eines Dokumentes von der Serviceeinrichtung, das eine Schnittstelle beschreibt, um auf einen Service zuzugreifen, der von der Serviceeinrichtung bereitgestellt wird,

das Empfangen des Dokuments direkt von der Serviceeinrichtung, wobei das Dokument Information aufweist, die beschreibt, wie auf den Service zuzugreifen ist, wobei das Abfragen und das Empfangen über die direkte Punkt-zu-Punkt-Kommunikationsverbindung durchgeführt wird und

das Verwenden der Information von dem Dokument, um auf den Service bzw. Dienst zuzugreifen.

40. Computerprogramm, das computerausführbare Befehle aufweist für das Implementieren des Verfahrens nach einem der Ansprüche 1 bis 18.

**Claims:** EP 1285354 B1

1. Procédé d'accès à un service de proximité, comprenant :

un dispositif client (2150) formant (2190) une liaison de communication directe point-a-point avec un dispositif de service (2170) ;

le dispositif client demandant directement (2192) au dispositif de service un document qui decrit une interface pour acceder a un service fourni par le dispositif de service ;

le dispositif client recevant (2194) directement ledit document du dispositif de service, dans lequel ledit document comprend des informations decrivant comment acceder au service ; dans lequel ladite demande et ladite reception sont effectuees par l'intermediaire de ladite liaison de communication directe point-a-point ; et

le dispositif client utilisant les informations dudit document pour acceder (2196) au service.

2. Procede selon la revendication 1, dans lequel ladite demande comprend le fait que le client envoie un message de demande d'annonce concernant le service au dispositif de service par l'intermediaire de la liaison de communication directe point-a-point, dans lequel le message de demande d'annonce est dans un langage de representation de donnees.

3. Procede selon la revendication 2, dans lequel le langage de representation de donnees est le Langage de Balisage extensible (XML).

4. Procede selon l'une quelconque des revendications precedentes, dans lequel ledit document comprend une annonce de service (2178) concernant le service, dans lequel ladite annonce de service comprend un schema specifiant une interface avec au moins une partie du service.

5. Procede selon la revendication 4, dans lequel ledit schema est un schema en Langage de Balisage extensible (XML) definissant des messages XML destines a etre envoyes au service par un client sur le dispositif client et au client par le service, afin que le client accede a des fonctionnalites du service.

6. Procede selon la revendication 5, dans lequel le dispositif client utilisant les informations dudit document comprend le fait que le client envoie au service un ou plusieurs desdits messages XML par l'intermediaire de ladite liaison de communication directe point-a-point.

7. Procede selon l'une quelconque des revendications precedentes, dans lequel ladite reception consiste a recevoir ledit document dans un message de reponse a une demande d'annonce envoyee par le service par l'intermediaire de ladite liaison de communication directe point-a-point, dans lequel le message de reponse a une demande d'annonce est dans un langage de representation de donnees.

8. Procede selon la revendication 7, dans lequel le langage de representation de donnees est le Langage de Balisage eXtensible (XML).

9. Procede selon l'une quelconque des revendications precedentes, dans lequel le dispositif client est dans le voisinage physique du dispositif de service.

10. Procede selon l'une quelconque des revendications 1 a 8, dans lequel ladite liaison de communication directe point-a-point est une liaison infrarouge de type IrDA.

11. Procede selon l'une quelconque des revendications 1 a 8, dans lequel le dispositif client est dans un voisinage sans fil du dispositif de service.

12. Procede selon l'une quelconque des revendications precedentes, dans lequel ladite demande consiste a inclure un certificat de securite du client dans une demande faite audit dispositif de service pour ledit document, et dans lequel ledit dispositif de service authentifie ledit certificat de securite de client avant d'envoyer ledit document au dispositif client.

13. Procède selon l'une quelconque des revendications précédentes, dans lequel ledit dispositif client utilisant les informations dudit document pour accéder au service, comprend :

le fait qu'un client sur le dispositif client demande un certificat de sécurité à un service d'authentification spécifique dans ledit document ;

le fait que le client reçoit ledit certificat de sécurité ; et

le fait que ledit client inclut ledit certificat de sécurité dans une demande ultérieure faite au service pour accéder à une fonctionnalité du service.

14. Procède selon la revendication 13, comprenant en outre le fait que le service vérifie le certificat de sécurité du client avant de permettre l'accès à la fonctionnalité.

15. Procède selon la revendication 14, dans lequel ledit service d'authentification est fourni par le dispositif de service.

16. Procède selon l'une quelconque des revendications précédentes, dans lequel le dispositif **client** prend en **charge** une connexion de transport en plus de ladite liaison de communication directe point-à-point, dans lequel ledit dispositif client utilisant les informations dudit document pour accéder au service comprend le fait que le dispositif client rend disponible ledit document à d'autres dispositifs par l'intermédiaire de ladite connexion de transport, dans lequel le dispositif client forme un pont entre ladite connexion de transport et ladite liaison de communication directe point-à-point afin que les autres dispositifs puissent accéder au service.

17. Procède selon la revendication 16, dans lequel ladite connexion de transport comprend une connexion par réseau.

18. Procède selon la revendication 17, dans lequel ladite connexion par réseau comprend une connexion Internet.

19. Système, comprenant :

un dispositif de service (2170) configuré pour prendre en charge une liaison de communication directe point-à-point et fournir un service ;

un dispositif client (2150) configuré pour former ladite liaison de communication directe point-à-point avec le dispositif de service ; dans lequel le dispositif client est en outre configuré pour demander directement au dispositif de service un document qui décrit une interface pour accéder au service ;

dans lequel le dispositif de service est en outre configuré pour fournir directement ledit document au dispositif client par l'intermédiaire de ladite liaison de communication directe point-à-point ; et

dans lequel le dispositif client est en outre configuré pour utiliser les informations dudit document pour accéder au service.

20. Système selon la revendication 19, dans lequel le dispositif client est configuré pour demander ledit document en envoyant au dispositif de service un message de demande d'annonce pour le service par l'intermédiaire de la liaison de communication directe point-à-point, dans lequel le message de demande d'annonce est dans un langage de représentation de données.

21. Système selon la revendication 20, dans lequel le langage de représentation de données est le Langage de Balisage eXtensible (XML).

22. Systeme selon l'une quelconque des revendications 19 a 21, dans lequel ledit document comprend une annonce de service (2178) pour le service, dans lequel ladite annonce de service comprend un schema specifiant une interface avec au moins une partie du service.
23. Systeme selon la revendication 22, dans lequel ledit schema est un schema en Langage de Balisage extensible (XML) definissant des messages XML devant etre envoyes au service par un client sur le dispositif client et au client par le service, afin que le client accede a des fonctionnalites du service.
24. Systeme selon la revendication 23, dans lequel le dispositif client est configure pour utiliser les informations dudit document pour envoyer au service un ou plusieurs desdits messages XML par l'intermediaire de ladite liaison de communication directe point-a-point.
25. Systeme selon l'une quelconque des revendications 19 a 24, dans lequel le dispositif client est configure pour recevoir ledit document dans un message de reponse a la demande d'annonce envoyee par le service par l'intermediaire de ladite liaison de communication directe point-a-point, dans lequel ledit message de reponse a une demande d'annonce est dans un langage de representation de donnees.
26. Systeme selon la revendication 25, dans lequel le langage de representation de donnees est le Langage de Balisage extensible (XML).
27. Systeme selon l'une quelconque des revendications 19 a 26, dans lequel le dispositif client est dans le voisinage physique du dispositif de service.
28. Systeme selon l'une quelconque des revendications 19 a 26, dans lequel ladite liaison de communication directe point-a-point est une liaison infrarouge de type IrDA.
29. Systeme selon l'une quelconque des revendications 19 a 26, dans lequel le dispositif client est dans le voisinage sans fil du dispositif de service.
30. Systeme selon l'une quelconque des revendications 19 a 29, dans lequel le dispositif client est configure pour inclure un certificat de securite du client dans une demande faite audit dispositif de service pour ledit document, et dans lequel ledit dispositif de service est configure pour authentifier ledit certificat de securite du client avant d'envoyer ledit document au dispositif client.
31. Systeme selon l'une quelconque des revendications 19 a 30, dans lequel ledit dispositif client est configure pour :
- demander un certificat de securite a un service d'authentification specifie dans ledit document ;
- recevoir ledit certificat de securite ; et
- inclure ledit certificat de securite dans une demande ulterieure faite au service pour acceder a une fonctionnalite du service.
32. Systeme selon la revendication 31, dans lequel le service est configure pour verifier le certificat de securite du client avant de permettre l'accès a la fonctionnalite.
33. Systeme selon la revendication 32, dans lequel ledit service d'authentification est fourni par le dispositif de service.
34. Systeme selon la revendication 19, dans lequel le dispositif client est configure pour prendre en charge une connexion de transport en plus de ladite liaison de communication directe point-a-point, dans lequel ledit dispositif client est en outre configure pour rendre disponible ledit document a d'autres dispositifs par l'intermediaire de ladite connexion de transport et pour former un pont entre ladite connexion de transport et ladite liaison de communication directe point-a-point afin que d'autres dispositifs puissent acceder au service.



35. Systeme selon la revendication 34, dans lequel ladite connexion de transport comprend une connexion par reseau.
36. Systeme selon la revendication 35, dans lequel ladite connexion par reseau comprend une connexion Internet.
37. Dispositif client (2150), comprenant :
- un port (2156) configure pour former une liaison de communication directe point-a-point avec un dispositif de service ;
  - une interface (2154) configuree pour demander directement par l'intermediaire de la liaison de communication point-a-point un document qui decrit une interface pour acceder a un service ; dans lequel l'interface est en outre configuree pour recevoir directement ledit document du service par l'intermediaire de la liaison de communication point-a-point ; et
- dans lequel l'interface est en outre configuree pour utiliser les informations dudit document pour acceder au service.
38. Dispositif de service (2170), comprenant :
- un port (2172) configure pour former une liaison de communication directe point-a-point avec un dispositif client ;
  - une interface (2174) configuree pour recevoir par l'intermediaire de la liaison de communication point-a-point une demande d'un client pour un document (2178) qui decrit une interface pour acceder au service (2176), dans lequel l'interface est en outre configuree pour fournir directement ledit document au client par l'intermediaire de la liaison de communication point-a-point ; et
- une unite de service configuree pour que le client y accede en conformite avec des informations specifiees dans ledit document.
39. Support d'informations comprenant des instructions de programmes, dans lequel les instructions de programmes peuvent etre executees par un ordinateur sur un dispositif client (2150) pour :
- former une liaison de communication directe point-a-point avec un dispositif de service (2170) ;
  - demander directement au dispositif de service un document qui decrit une interface pour acceder a un service fourni par le dispositif de service ;
  - recevoir directement ledit document du dispositif de service, dans lequel ledit document comprend les informations decrivant comment acceder au service ; dans lequel ladite demande et ladite reception sont effectuees par l'intermediaire de ladite liaison de communication directe point-a-point ; et
- utiliser les informations dudit document pour acceder au service.
40. Programme informatique comprenant des instructions executables par un ordinateur pour mettre en oeuvre le procede selon l'une quelconque des revendications 1 a 18.

? d s

Set	Items	Description
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S1 59501753 S PD<20030627 AND PD>19970627  
S2 1137 S CLIENT-IN-CHARGE OR (CLIENT(2W)CHARGE)  
S3 941 S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))  
S4 77606 S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(THIN OR CENTRIC OR HEAVY OR FAT))  
S5 8 S S1 AND S2 AND (S3 OR S4)

? s transaction or transactions

Processing

3602978 TRANSACTION

2750065 TRANSACTIONS

S6 5520416 S TRANSACTION OR TRANSACTIONS

? s (transaction(5n)(object or objects or component or components or detail or details)

>>>W: Unmatched parentheses

>>>E: There is no result

? S TRANSACTION(5N)(OBJECT OR OBJECTS OR COMPONENT OR COMPONENTS OR DETAIL OR DETAILS)

Processing

Processing

Processing

Processing

3602978 TRANSACTION

2237199 OBJECT

1362740 OBJECTS

3841223 COMPONENT

5702790 COMPONENTS

2626364 DETAIL

5465461 DETAILS

S7 72766 S TRANSACTION(5N)(OBJECT OR OBJECTS OR COMPONENT OR COMPONENTS OR DETAIL OR DETAILS)

? s s1 and (s2 or s3 or s4) and s7

Processing

59501753 S1



1137 S2  
 941 S3  
 77606 S4  
 72766 S7  
 S8 519 S S1 AND (S2 OR S3 OR S4) AND S7

? d s

Set	Items	Description
S1	59501753	S PD<20030627 AND PD>19970627
S2	1137	S CLIENT-IN-CHARGE OR (CLIENT(2W)CHARGE)
S3	941	S SERVER-CENTRIC OR SERVER-HEAVY OR (SERVER(2N)(CENTRIC HEAVY OR FAT))
S4	77606	S CLIENT-CENTRIC OR CLIENT-HEAVY OR (CLIENT(3N)(THIN OR CENTRIC OR HEAVY OR FAT))
S5	8	S S1 AND S2 AND (S3 OR S4)
S6	5520416	S TRANSACTION OR TRANSACTIONS
S7	72766	S TRANSACTION(5N)(OBJECT OR OBJECTS OR COMPONENT OR COMPONENTS OR DETAIL OR DETAILS)
S8	519	S S1 AND (S2 OR S3 OR S4) AND S7

? Please enter a command or be logged off in 5 minutes

? Logoff

#### Estimated Cost Summary

Project		Client		Charge Code		Searcher		Job		Service Code	User Number
						Rob Pond				51	264751
Date		Time		SessionID		Subsession		Subaccount			
03/27/2007		14:15:18		42		3					
Data Base	Dial Units	Access Charge	Print Credit	Types	Prints	Report	Rank	Links	CSS	Total	
15	0.4830	2.61	0.00	0.26	0.00	0.00	0.00	0.00	0.00	2.87	
9	0.5610	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.03	
610	0.3770	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	
810	0.1810	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	
275	0.3620	1.96	0.00	0.70	0.00	0.00	0.00	0.00	0.00	2.66	
476	0.2220	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	
624	0.2500	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41	
621	0.7500	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.05	
636	0.6120	3.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.31	

613	0.3970	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
813	0.2310	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
16	1.6750	9.05	0.00	0.26	0.00	0.00	0.00	0.00	0.00	9.31
160	0.0580	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
634	0.1290	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
148	2.1260	11.48	0.00	0.26	0.00	0.00	0.00	0.00	0.00	11.74
20	5.7560	5.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.76
35	0.0730	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
583	0.4680	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57
65	0.0500	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
2	0.2610	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56
474	0.1620	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57
475	0.1010	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
99	0.1570	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75
256	0.0390	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
348	1.5090	8.18	0.00	6.55	0.00	0.00	0.00	0.00	0.00	14.73
349	1.0370	4.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.93
347	0.8060	8.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.83
635	0.3770	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04
570	0.2800	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.51
387	0.1230	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
471	0.2760	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
492	0.1830	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18

494	0.1920	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
631	0.1810	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
633	0.1510	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
638	0.2050	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
640	0.1620	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
641	0.1830	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
702	0.2200	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
703	0.1010	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
704	0.1920	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
713	0.2090	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
714	0.1570	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
715	0.1030	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
725	0.1030	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
735	0.1530	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
477	0.1360	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
710	0.2720	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
711	0.2130	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
756	0.1510	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
757	0.4870	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49
47	0.4590	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.48
Sub	24.1020	\$83.11	\$0.00	\$8.03	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$91.14

**Pond, Robert**

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**From:** Earle Jennings [ewj@ix.netcom.com]  
**Sent:** Monday, January 29, 2007 4:32 PM  
**To:** Pond, Robert  
**Subject:** Re: Follow-up 10/607,617

Thank you, Earle

Pond, Robert wrote:

Earle,  
Key citations from the two patents mentioned.

US 6332163: col. 31, lines 15-34; Fig. 185; col. 300, lines 30-34; col. 297, lines 15-40; col. 298, lines 15-27; col. 300, lines 52-58; col. 302, line 55 through col. 303, line 6; col. 303, lines 52-62; 304, line 33 through col. 305, line 4; col. 45, line 21 through col. 47; Fig. 187; Fig. 190; Fig. 193; col. 93, lines 31-55; col. 304, lines 33-42.  
Multiple motivation jump-off points to ascertain suggestion made etc.

I extracted the above from the draft non-final action based on order of use so there may be some overlap.

US6697824 (same inventor and reference same co-related patent as '163 does) Fig. 41; col. 80, lines 30-64. This is very strong business-level art with multiple motivation jump-off points to pull in a third reference where necessary.

-----Original Message-----

**From:** Pond, Robert  
**Sent:** Monday, January 29, 2007 9:49 AM  
**To:** 'ewj@ix.netcom.com'  
**Subject:** RE: Scheduling a meeting regarding Application 10/607,617

Earle,  
Can you give me a call today or tomorrow? I'll be available today from 10:30 EST-12noon; 2PM on.

Rob Pond  
571-272-6760

Paper # 20070129